RC 5001

# Antiquity

## A Quarterly Review of Archæology

*Edited by O. G. S. Crawford, F.S.A.*

## MARCH 1928


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# HISTORY


THE QUARTERLY JOURNAL OF

THE HISTORICAL ASSOCIATION

*Editor:* MISS E. JEFFRIES DAVIS, M.A.


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# Antiquity

## A Quarterly Review of Archæology

VOL. II NO. 5 MARCH 1928

## Editorial Notes

WHEN, last September, we asked our readers to contribute towards the UR EXCAVATIONS, we little guessed what wonderful discoveries were about to be made. In the present number we are able to give the first full published account of them, specially written for ANTIQUITY by Mr Woolley himself; and an appreciation, by Dr Hall, Keeper of Egyptian and Assyrian Antiquities in the British Museum, of the general position reached at Ur. Mr Woolley's five years' previous work had shown that here on one site were combined great excavating skill and a remote and almost unknown phase of civilization—the oldest phase revealed anywhere. Now there has been added the glamour of buried treasure. For once a great find of gold and silver objects has also great scientific value. Until Mr Woolley found the foundation-tablet of A-anni-padda in 1923 at Tell el Obeid [al 'Ubaid], 4 miles from Ur, it was permissible to regard the first dynasty of Ur as legendary. Now such a view is impossible. The existence of Mes-anni-padda, the first king of the first dynasty, was made still more certain by the discovery of the seal of his wife, Nin-dumu-nin. But the latest finds go back even behind the first dynasty, which we now know to have been preceded by a line of kings and queens hitherto unknown and unmentioned in any of the king-lists. Fortunately the names of some are given by inscriptions. Who were King A-bar-gi and Queen Šub-ad whose graves were already

forgotten 5000 years ago? That they were no mere tribal chiefs is proved by the sumptuous possessions they hoped to take with them into another world—the gold jewelry and semi-precious stones, the gold and silver vases, the beautiful inlaid harp, the bullock waggons, the slaughtered soldiers and attendants. That their subjects had advanced far along the road of culture is proved by these objects, some of them requiring much technical skill, by their use of the true arch, by their art. All these things belong to the period 3500–3100 B.C.—we give the possible range—and even then we are plainly far removed from the beginnings!

The British Museum and the Museum of the University of Philadelphia are to be congratulated upon the marvellous success of their joint undertaking. Seldom has 'digging for knowledge' been so amply recompensed. Virtue is, of course, its own reward; but the reward is not always thus gilded. The practical effect, moreover, is considerable. Archaeological research depends ultimately upon public support when it involves the expenditure of much money. Had Mr Woolley found no gold at all and no objects of any intrinsic or spectacular value, he would nevertheless have made an epoch-making discovery; but it would have remained unknown to all but a few specialists. Apart from such secondary—but important—considerations, gold objects have a real superiority over those of silver and copper and some other materials, for gold is incorruptible; it does not oxidize or tarnish and *objets d'art* made of it look today as new as on the day they were made. Hence the extraordinary freshness of the animal figurines (plate II), of the leaves and flowers of Queen Šub-ad's cape (plate I), and of the inscribed name of Mes-kalam-dug (plate VI, 2). The same good fortune preserves for us, though less perfectly, the inlaid designs of limestone and shell.

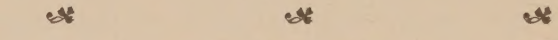
It is clear from Mr Woolley's allusions (*e.g.* on pages 11–12) that he still has in store a rich treasure of art, without taking into account what the next few weeks' digging may reveal. The silver boats, the waggons, the head-pieces, the harp, the jewelry and inlay-work are still undescribed, and we must wait in patience. Discoveries such as these throw upon the excavator an immense burden of labour and responsibility. No one should miss the annual exhibition at the British Museum this summer. It should be worth travelling from the ends of the earth to see.

# EDITORIAL NOTES

One of the best ways of conjuring up the past is to go there for a holiday. No time-machine is required for the journey. Within a thousand miles of London there are people still living a life as primitive as that of our prehistoric ancestors. The Berbers of the Aures Mountains are not of course connected with us, nor is life in North Africa today the exact counterpart of life in pre-Roman Britain. But there is much in common, as readers of Captain Hilton-Simpson's article in our last number will have learnt. In order to see something of this life at first hand, if only as a tourist, the Editor spent his Christmas holiday in the Aures district, away from roads, travelling on a mule. It was a strange experience ; one felt as if one was living in a past age. One ate good whole-meal bread, made from flour ground on hand-mills (see ANTIQUITY, i, plate 7 facing page 400) that might have been found at Rotherley or Glastonbury. One fed with wooden spoons from a common hand-made earthen bowl that might have come from All Cannings Cross ; and one slept in early Iron Age quarters ! The illusion—for a British archaeologist—was the more complete in that much of the pottery used is of the ' finger-tip ' type (see *Antiquaries' Journal*, ii, 1922, page 29), characteristic of the late Bronze and early Iron Ages. (In answer to an enquiry it was stated that the ' finger-tip ' indentations are applied, to raised ribs of clay or to the lip, with the finger-tips *or* with a pointed stick indifferently). Some of the smaller, globular pots are used for cooking or steaming food in ; the larger serve also as chimney-pots, the bottoms being knocked out. In one modern cemetery nearly every grave had one of these small bowls lying on it.

It was a pleasant surprise to come accidentally upon the old quern-maker portrayed in plate 7, referred to above, squatting in the same spot, chipping away at a quern exactly as he appears in the picture, taken before the war. One never tired of watching the craftsmen at work and admiring their extraordinary skill. (To them this interest was inexplicable, so accustomed are they to the sight). With no tool but an adze (mounted in a short handle, just like our Iron Age ones, but flanged, not socketed) the village blacksmith shapes the simple parts of the wooden plough and then fits to it the iron shoe he has just forged. Every blow falls where it is meant.

The villages are almost entirely self-supporting. From sheep to rug, bag or carpet—from cultivation-plot to table—every process is carried out, and nearly every tool is made, at home. Almost the only imports are salt and occasional luxuries of European origin—a table-cloth or chair, an iron kettle or glass tumbler, a bottle of aniseed. Individuality and good manners still survive and count, but there is no art. Life indeed is hard and unattractive, especially for the women who carry the water and gather fuel. Indeed the winter visitor sees one side only ; the resident sees the other, when summer brings heat, dust and flies. The simple life may be all right from outside, but those who practice it of necessity usually hold strong views about it.



The comedy of GLOZEL (first exposed in ANTIQUITY) would have ended in a shout of laughter had not the daily press—with one or two exceptions—been completely hoodwinked. Between 4 November and 8 November the International Commission carried out investigations at Glozel. Objects were found—amongst them being an ' inscribed ' clay tablet ; and so the reporters concluded that all was well. To them a find is a find, no matter how it is made, or what the stratification. This favourable impression was naturally strengthened by the daily bulletins with which Dr Morlet fed them and which, for lack of more solid food, they hungrily devoured through the bars of the enclosure. No authoritative pronouncements were made, the members of the Commission having very properly agreed to maintain silence. On 23 November *The Times* published an article by the Editor of ANTIQUITY headed 'A Sceptic on Glozel'. The *Paris Daily Mail*, however, assuming that 'what I say three times is true', provided its readers with the following choice news-items :—' The genuine nature of the finds, whatever their date, is now beyond dispute, and is accepted by all the members of the Commission ' (8 November) ; ' The Commission's report which will be issued shortly '—it was issued six weeks later—' will, I understand, declare the absolute authenticity of the finds and the complete absence of fraud, but will not venture a final and definite decision as to their date ' (14 November) ;

'the majority of the members of the Commission, it is understood, are quite satisfied that the finds are absolutely genuine, and scout the suggestion of trickery' (20 December). Actually of course the Commission reported unanimously that (with a few insignificant exceptions mostly to do with the glass factory) the finds were not ancient. On 7 January, *The Times* and the *Manchester Guardian* published a damning letter from Sir Arthur Evans, who made a special visit to Glozel; he expressed surprise that such obvious fakes should have deceived anyone. In the middle of January was published the report of M. Champion, technical assistant at the S. Germain Museum, of which M. Reinach is still the Director. Charged with the minute examination of the objects themselves, M. Champion reported that they were forgeries, and that files and other iron tools had been used in their manufacture (*Revue Anthropologique*, 1928, nos. 1–3, E. Nourry, 62 Rue des Ecoles, Paris). These triple blows have demolished Glozel; after a short but gay life it is dead. On the field of battle lie the corpses of several learned reputations.

With the sequel in the law-courts we are not here concerned. We are told that one of the cases has been got up merely as a newspaper stunt, offers having been made to pay the expenses of *both* parties! Readers who wish to read more about this silly business will find an excellent and witty summary in our contemporary the *London Mercury* (January 1928, pp. 229–33), which has not, like the *Mercure de France*, been deceived, and which has throughout maintained a critical attitude, as one would have expected. The Commission's report is published as a supplement of the *Revue Anthropologique*, 1927, nos. 10–12; M. Champion's is in the following number. In the current number of *L'Anthropologie* (vol. xxxvii, 1927, pp. 575–94), is a documented history of the affair; and M. Vayson de Pradenne contributes an amusing little article, 'La deuxième affaire Glozel', to *L'Opinion*, Saturday, 28 January. With the exception of the first, not one of these publications gives ANTIQUITY the credit for leading the attack on Glozel; but French archaeology begins and ends at home, and we may safely leave our neighbours to clear up the mess that has been made. We shall not refer again to Glozel—unless greatly provoked.

## ANTIQUITY

We regret to inform our readers that VOLUME ONE of ANTIQUITY is now out of print. The Editor will gladly buy back at cost price (five shillings each) any copies of numbers 2 (June) and 3 (September) which readers may be willing to dispose of. Copies of numbers 1 (March) and 4 (December) can still be supplied. The price of the bound volume, if it becomes available again, will be two guineas; there is already a long waiting-list.

SUBSCRIPTIONS for the year 1928 are now due and an early renewal by means of the form enclosed with this number will be appreciated.

In the underline of Vol. i, plate 7 facing page 400, for 'Menaa' read 'Beni Fera', and on page 433, six lines from bottom, for the figures in brackets substitute 450–600 A.D.

# PLATE I

GOLD HEAD-DRESS OF QUEEN SUB-AD IN POSITION, WITH REMAINS OF BEADED CLOAK, GOLD PINS, AMULETS AND CYLINDER SEAL

*facing p. 7*

# The Royal Tombs of Ur

by C. Leonard Woolley

THE royal tombs that have been discovered at Ur this winter are remarkable not only for their contents but for their construction, and for the light they throw on Sumerian funeral customs unguessed hitherto.

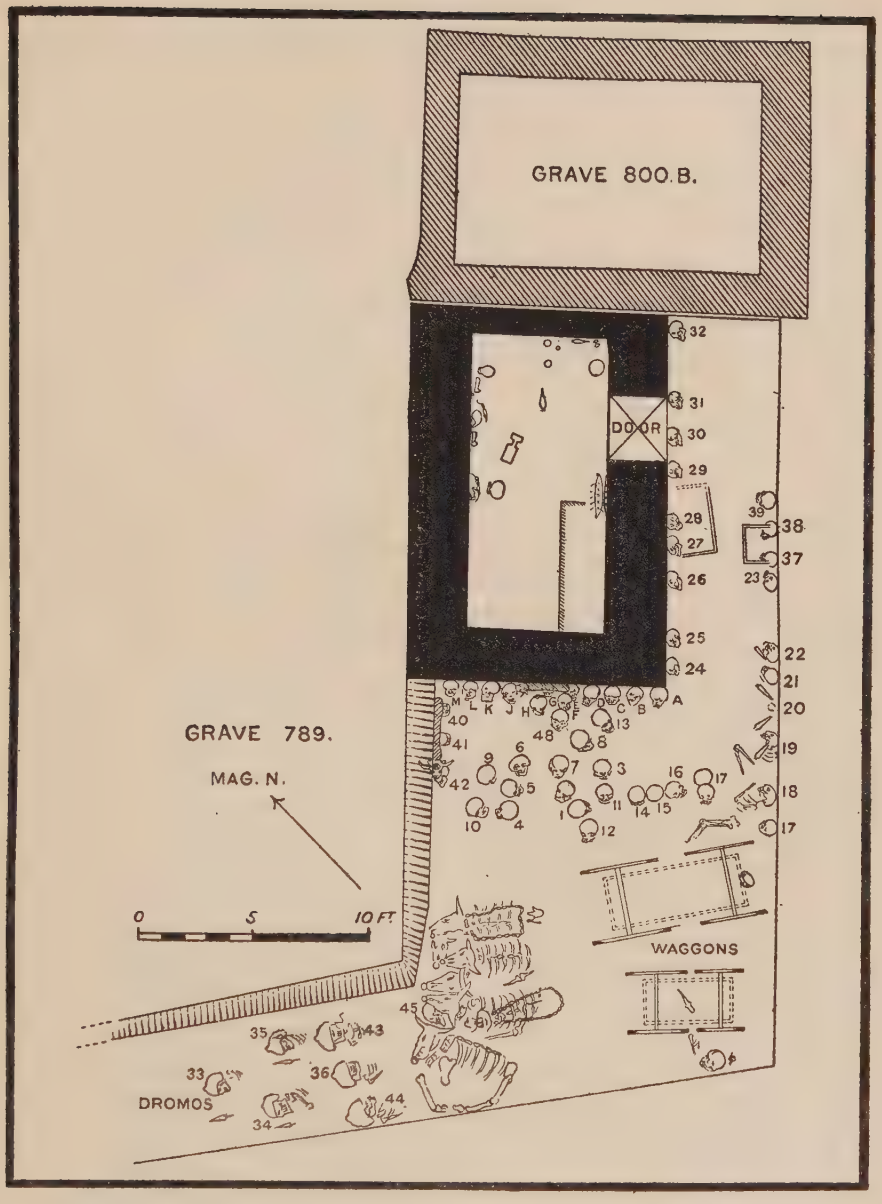
We have dug some nine hundred graves in this cemetery and the types are well established. There are a certain number of clay coffins; they form a small proportion of the whole and tend to be commoner in the late than in the early period, but do occur even in the earliest time. The normal grave is a rectangular shaft measuring little more than 1½ metres by 1 metre; the bottom of this may be lined with matting and the body, wrapped in a mat, simply laid in it, or there may be a coffin, generally made of wickerwork with wooden stays, occasionally of wood: it contains the body and the more personal ornaments, while the rest of the funeral offerings are deposited by the side of it in the grave-shaft. The grave of the prince Mes-kalam-dug was precisely of this type, distinguished only by its being rather larger than usual and by the extraordinary richness of its contents—the gold wig, the gold bowls and lamp have no parallel in other graves of the class, and the wealth of vases and weapons heaped against the coffin makes a striking contrast to the habitual grave furniture. But all these riches were placed in a plain earth shaft or in a wooden coffin against the shaft's side and the whole area occupied by them was but 2½ metres by 1½: the real contrast here is with the kings' tombs of which four have been now excavated.

For a king's tomb a rectangular shaft was dug which might measure as much as twelve metres by eight, and which was entered by a sloped or stepped *dromos* from the ground surface; the depth of the excavation is difficult to judge. At the bottom of the shaft was built a tomb of stone or stone and brick: it must be remembered that stone, imported from a great distance, was an expensive luxury rarely used in buildings; and when we find as much as four hundred cubic metres of limestone employed in the construction of a single tomb we have *a priori* reason

to consider it a royal burial-place. In two graves (PG. 779 and 777), one of which I should judge to be the oldest yet found (the other was too thoroughly plundered to afford good criteria for dating), the construction was in stone throughout; the former, which was by far the better preserved, consisted of three parallel chambers (one of them divided into two bays) built of quarry rubble; the rooms, each 5.90m. long and from 2.15m. to 2.60m. across, are roofed with a corbelled vault of the same unshaped stone, but instead of the end walls being carried up straight, the room-corners have been strutted at, or slightly below, the level of the springers on the side walls, and on the curve thus formed the corbelling has been taken round over the end walls so as to produce an apse. In the two other tombs (PG. 789, 800), which actually abut on each other and can only be separated in time by a comparatively few years, the roof is of brick ; the stone walls have been carried up to a uniform height, a levelling-course of brick laid along them, and on this built a vault of which the central portion is composed of contiguous rings of true arching and the apsidal ends of corbelled work (plate IV); though here too the influence of the arch construction has made itself felt in that the bricks, each projecting beyond the course below, are laid not flat but with a downward and inward slope secured by the insertion of sherds or brick fragments between the outer ends of the bricks to give a radial joint ; here therefore we have a cross between corbel and true domical construction. Beam-holes in the walls shew that the roof was built over a centering ; straws adhering to the joints of the brickwork make it clear that the centering was of wood on which was heaped (probably) light earth and straw arranged in the proper curve. The discovery that all these constructional systems were known and used in the fourth millennium B.C. is a revolutionary one for the history of architecture.

The rubble was laid in mud mortar (as was the brick also) and at present the walls and roof look very rough; but originally they were plastered with a smooth and thick coat of lime cement, as were also the floors, at least in the case of the better-preserved tomb PG. 779: presumably the houses of the period were similarly plastered, the tomb being as far as might be a reproduction of the dwelling-place of the living. It is worth remarking that the vaulted building might itself well be a development from the primitive hut of matting spread over bent reed-bundles, the tunnel-like ' house ' of the modern native of this part of Iraq.

The two all-stone tombs occupied the entire area of their respective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grave-shafts: in each one chamber would be the place for the king's body, the others would contain those of his servants; in PG. 777 the remains of burials in the outer chamber proved this to be so. The two brick-vaulted tombs, PG. 789 and PG. 800, which we regard as rather later in date, were different. Here there is only a single built chamber for the royal body, and the subordinate burials are in the grave-shaft alongside it. The plan of PG. 789, reproduced on page 9, will make this clear. The builded tomb stands in one corner of the pit, with an entrance, arched with brick (plate IV), in one side; the rest of the shaft-area was left open, its walls hung with matting and mats spread over at least part of its floor. In the tomb proper (which had been thoroughly plundered) we found traces of three skulls, probably those of the king and his personal attendants; in the grave-shaft, which was undisturbed, there were sixty bodies of the victims killed in the king's honour. On the lower part of the dromos slope lay the soldiers of the guard (as in PG. 779) helmeted and armed (see fig. 1, numbers 33 to 36, 43, 44); just at the bottom were two heavy wooden waggons, standing as they had been backed down the slope, with the oxen harnessed to them three to each, complete with silver collars, reins of great silver and lapis beads and pole-rings surmounted by figures of bulls also in silver; a groom (plan, number 45) lay at the head of the oxen and the bones of the drivers by the waggons.[1] Against the foot of the tomb lay the skulls of women (numbered A to M on the plan, fig. 1), wearing elaborate head-dresses of gold ribbon, gold leaves, beads of lapis and carnelian, very large gold ear-rings, and silver pins with lapis heads; these were presumably the ladies of the harem. They had with them cockle-shells containing toilet paints and small limestone cups. Against the SE side of the shaft were bodies of men (plan, numbers 18 to 23 and 37 to 39), of whom one wore a copper helmet with silver chin-strap and the others diadems of silver chains and beads; some had daggers slung in belts against the hip. The remaining bodies had few objects with them other than beads. The bones were in very bad condition, reduced for the most part to brown dust, and it was impossible to make out the position of most of the bodies; evidently they were much confused, and it would appear that the victims had been marshalled

[1] Of the waggons there remained only the black stain of wood in the earth and the copper bolts that fastened the body to the axle; but these stains could be traced out and even photographed. The wheels were solid, with leather tyres; the axle seems to have revolved with the wheels, not the wheels on the axle.

in this narrow space and struck down, to lie as they fell. On the top of them, against the end of the tomb and against the NW side of the shaft, had been placed two wooden statues of bulls ; one had a copper head, the other a head of gold and lapis, and the chest of each was decorated with a band of shell plaques engraved with mythological scenes.

In all this we have proof of a funeral ritual unsuspected hitherto in ancient Sumer, a ritual which at this date was only observed in the case of kings, though originally it may have been more general. The discovery opens a wide field for conjecture.

The vaulted chamber of PG. 800, B was built up against the back of that of PG. 789 : its shaft (if we are right in associating the two, as we almost certainly are) was nearly conterminous with that of PG. 789 but at a higher level ; the floor was flush with the crown of the arch of the older tomb, and it seems most likely that the excavation of this shaft gave occasion for the plundering of the tomb thus exposed. The close connexion of the tombs must be intentional, *i.e.*, due to sentiment, and would shew them to be nearly contemporary ; PG. 800 is the grave of a woman, Queen Šub-ad ;[2] PG. 789 might then be that of her husband, the ' King A-bar-gi ' whose name appears on a cylinder seal found in the shaft of her grave.

Both tomb and shaft were intact. The queen lay on a bier wearing a gold head-dress of ribbons, leaves, flowers and rings with a big gold pin branched and tipped with mosaic flowers rising above it (plate I) ; great ear-rings, a coat entirely covered with beads of lapis, carnelian, agate and gold, gold pins, rings and amulets and a necklace of lapis and gold ; by her side lay a second head-dress consisting of a fillet of leather covered with minute gold and lapis beads and decorated with gold figures of animals (plate II), ears of corn, bunches of pomegranates and flowers. An attendant was crouched at the head of the bier and another at the foot. The tomb was crowded with offerings. There were golden bowls and cockle-shells of gold and silver containing paints, silver vessels by the score, including a set of eighteen fluted and engraved tumblers, silver lamps, ostrich-shells adorned with incrustation of lapis and mother-of-pearl, vessels in copper and in stone : some of these were piled on the ground, others had stood on wooden shelves along the side and ends of the chamber. Against one wall had been a statue of a cow, in wood, with a silver head.

In the shaft were more vessels of silver and gold, two of the latter

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[2] Š | Sub [ka+šu]–ad | nin.

beautifully fluted (plate VI, 1), two silver heads of lionesses, apparently from a stool, stone vases including one cup carved in lapis and a bowl of translucent obsidian, a great wooden chest originally decorated with mosaics in lapis and shell, a few tools and weapons of which a set of chisels and a saw were of gold, and sets of short spears with gold and silver points. More remarkable still were two objects—a harp decorated with bands of inlay and with a bull's head in gold and lapis, and a light chariot, not wheeled but of the sledge type represented on the pictographic tablet from Kish, all adorned with inlay and with heads of lions, bulls and leopards in silver and gold. Here too were the victims killed to accompany the dead ; the harpist was crouched by the harp, the grooms lay at the heads of the asses which drew the chariot ; apart lay the court ladies with their golden head-dresses, a group of men-servants, and by the wooden chest the single bodies of other attendants.

Not only are the burial customs new and the tomb-construction unparalleled hitherto in Sumerian archaeology, but the objects are such as have never before been found in this country ; their importance is not confined to Sumer, but our ideas of the early history of civilization as a whole must be profoundly modified by them. In estimating their value as documents the question of date is a prime factor.

At the close of the first season's work on the graves I described the area as containing three cemeteries, an upper Sargonid stratum, *c.* 2700 B.C. ; a stratum labelled by us ' First Dynasty ', containing graves which really overlapped that period but tended to be rather earlier ; and a ' Prehistoric ' stratum of graves to which we might assign the round date of 3500 B.C. At present I feel that the definition holds good except in that the two earlier cemeteries may be continuous, though in that case they represent so long a time that the division into two is scarcely misleading.

While ' stratification ' is a convenient term to use it must not be taken too literally ; mere depth below the surface gives no mathematical proof of date. This general truth (for it is obvious that at any period one grave may be dug deeper than its contemporary neighbour) is especially applicable to our cemeteries, because the modern ground level has particularly little relation to the ground level of any period during which the graveyard was in use.

The cemetery area lies against the NE face of what is perhaps the oldest part of Ur, a high mound rising in a series of mud-revetted terraces (see *Antiquaries Journal*, vol. vi, p. 386). From this settlement

rubbish had been thrown out over the terrace edge until it rose as high as the terrace itself, sloping gradually down and heaped in irregular mounds from the terrace to the low ground at its feet. Wherever it has not been disturbed the stratification of this rubbish-dump is perfectly clear, with its alternating bands of crumbled mud brick, burnt earth, broken pottery, ashes, etc., slanting more steeply as they get lower and nearer to the terrace where the first dump was thrown out, approaching more to the horizontal as the talus rises and spreads out further into the plain. Over this very early rubbish accumulated a thick bed of such mixed soil as one associates with the decay of mud houses, swamping the old contours and levelling up the surface to some extent—there may indeed have been some intentional levelling, though the ground remained far from regular. Then the area came into use as a cemetery and the oldest graves are cut down through the mixed soil into the sloping strata of the rubbish-heap. The ground level rose steadily, so that the general tendency is for the later graves to lie higher than the earlier in their immediate neighbourhood, but the slope was still there, and hummocks, so that in one place the first dynasty graves may be actually higher above sea level than are the Sargonid graves thirty metres away. In the time of the third dynasty of Ur the SW side of the neglected cemetery was used as a building site, and levelling for this meant the cutting down of some of the high ground near the prehistoric terrace and the raising of the slope adjoining; after the Larsa period more levelling was done further to the NE, masses of broken pottery and other rubbish being dumped into the pits and hollows.[3] Then denudation set in, with the long decay of Ur: when we started work the surface was a dead flat sloping very gently from SW to NE; on the SW the modern surface was below that of the prehistoric terrace, of the great third dynasty building there remained a scrap of wall two or three courses high almost flush with the ground, and at a depth of less than a metre were brick pavements of the first dynasty and Sargonid graves in the surface dust; to the NE we might have to dig down through four metres of post-Larsa rubble filling before we came to what had been surface level at the time of the very latest graves.

[3] A good deal of the plundering of the graves was done at the times of these levelling operations; the section of the upper soil often shews pits filled with late rubble going straight down into the tomb strata. One such shaft came down right alongside the plundered royal grave PG. 777 and a broken cone of Ur-Nammu was found in it almost at tomb level. But the tomb had probably been robbed much earlier.

Clearly mere depth means little here; but, where we can trace out the early contours of the soil, there relative depth does count for something, and we do find that depth, properly estimated, supports very well the internal dating evidence of the graves.

About the Sargonid graves there is no difficulty. They are distinguished by position, by their pottery types, by the cylinder seals, —in fact by all their contents—so unambiguously that they can be used to date levels rather than be dated by them. The accretion of soil between the first dynasty and the Sargonid period does not seem to have been very great, and the graves of the former age have often been disturbed by the Sargonid burials; others, lying deeper, have escaped. A fixed point in time was given by the finding last season of a cylinder seal bearing the name of the wife of Mes-anni-padda, first king of the first dynasty of Ur: it was found loose in the soil of the grave stratum, thrown out from some plundered grave,[4] and its evidential value is by so much the less, but it does shew that the cemetery was in use at that time, and the style of the seal cutting and of the script enables us to associate it with other graves of the second level. We thus get a link with the first dynasty. On the other hand the pottery from these graves is by no means identical with that from the al 'Ubaid graves, which we may fairly suppose to date from the time of the founding of the al 'Ubaid temple by A-anni-padda onwards; a certain number of the types are the same, but many of those characteristic of al 'Ubaid do not occur at Ur and some of the Ur types are not found at al 'Ubaid. But we do find types which connect more closely with the A cemetery at Kish. I have argued elsewhere (*Al 'Ubaid*, p. 157), that the Kish cemetery antedates the first dynasty of Ur, probably by a not very long space of time; last year I suggested that our second cemetery fell between the two and overlapped with both: assuming 3100 B.C. as the date of the first dynasty we might take 3200 B.C. as the central point for this cemetery. The earliest graves I put at some 300 years before that. The date 3200 B.C. is, I think, confirmed by this season's work: whether there is a continuous succession from the earliest graves to that date, or whether there is another time gap as I then believed, is a point more difficult to settle and requiring more work over the material to hand than in the middle of a digging season we have been able to give; but in neither case does the round figure 3500 B.C. seem unduly high.

[4] Not necessarily from the grave of the queen herself; the seal might have been carried by any member of her household.

Many of the contents of the graves, especially those of most artistic pretensions, shew a similarity of style which must be due either to their being nearly contemporary or to a very rigid and lasting artistic convention; the fact that the style closely resembles that of the unquestionably later Ur-Nina work makes the theory of convention at least plausible. On the other hand there are in the common pottery and in the weapons certain quite clearly marked differences between the lowest and the highest of the graves; types go out of fashion or are modified, and new types come in, to an extent which normally we should take to indicate a considerable lapse of time. The cylinder seals should help us, but they do so less than might be expected; perhaps we have still more to learn about cylinder seals than from them. PG. 800 produced two seals, the script on one of which would suggest a pre-dynastic date while that on the other might almost be Sargonid, so that the script by itself is not always a safe criterion. There are marked differences of style, but here too the differences are not always due to regular development and seals very disparate in appearance may be contemporary; but the argument from style demands more study than we have yet given. The names on the seals are useful. A-bar-gi or A-barag-gi (PG. 800) has analogies with En-men-barag-gi-si, the 22nd king of the first dynasty of Kish, the first dynasty after the Flood; Lugal Šag-padda recalls Mes-anni-padda and A-anni-padda of the first dynasty of Ur, and perhaps Lugal-šag (?) on a monument in the British Museum (*Al 'Ubaid*, p. 54). For Mes-kalam-dug 'the hero of the good land' we have analogies in the first dynasty of Ur (Mes-anni-padda, Meskem-Nannar) and in the dynasty of Erech which precedes it (Meskem-gaš er, Utul-kalamma). The royal name En-men-an-na has parallels in the names of two kings of the first dynasty of Kish, the En-men-barag-gi-si quoted above and En-men-nun-na, and in the names of three antediluvian kings one of whom, En-men-gal-an-na, Berosus seems to call Ammenon, implying En-men-an-na exactly as here. On the other hand the name is found as late as the third dynasty and the style and script of this seal look relatively late. All these names would agree well with a period ending about the time of the first dynasty of Ur and going back three or four hundred years.[5]

For definite evidence we must at present fall back on the argument of depth, relative depth conditioned by all the factors I have described above. The grave of Mes-kalam-dug lay seven metres below the

[5] For the remarks on the seals I am indebted to the Rev. E. Burrows, S.J.

modern surface, the great stone grave PG. 779 at a depth of twelve metres and a half ; what is really important is that Mes-kalam-dug's grave intrudes into the shaft cut for the stone tomb. The shaft could not have been dug without disturbing Mes-kalam-dug's grave, had that been the earlier ; it follows that the grave is later than the tomb, just as its actual depth would suggest. Now Mes-kalam-dug's grave might by position be about contemporary with queen Šub-ad's—it is nearer the modern surface, but was higher up the original slope—and the decoration of the gold vessels from the two graves is identical ; if we assume that the grave of Šub-ad and therefore that also of her husband (?), *i.e.*, PG. 800 and PG. 789, are later than PG. 779, the differences between them already described become most instructive. There is the change of practice whereby the subordinates are buried in the open pit instead of inside chambers ; the economy in the use of stone seems to be a step in the process whereby stone was employed freely here, sparingly for foundations under the first dynasty of Ur, and subsequently dropped out of use altogether ; the substitution of the true arch for corbel vaulting should mark an advance in architectural knowledge which, if it was really made between the dates of the two graves, would separate them widely. But the two brick-vaulted graves do not bring us down to the first dynasty. We are familiar enough with the plane-convex bricks of A-anni-padda and other first dynasty kings ; here we have a totally different type of large flat brick which does not appear in any subsequent period : at Ur, as apparently at Kish, the flat brick precedes the introduction of the plane-convex, and its use for the tomb arches must take them well back beyond the first dynasty.

The case of Mes-kalam-dug is not isolated. The cemetery was crowded, and it is a very common thing to find one grave exactly over another, and sometimes they are three or four deep. Such superposition provides an excellent basis for relative dating, but in normal cases we have no means of knowing how long an interval separated the lower from the upper burial. But it is different where a royal grave is concerned. A king's tomb, sanctified by the wholesale slaughter of his followers, was not likely to be soon forgotten or lightly esteemed ; indeed we have very strong evidence (in the case of PG. 777, one of the all-stone tombs) that the shaft was surmounted by a sort of funerary chapel. It is inconceivable that the graves of commoners should intrude on the actual shafts of the royal tombs as long as their memory persisted, yet in fact such intrusive graves do

occur in every instance, and that at varying levels : and as these intrusive graves are themselves not later than the first dynasty of Ur we must allow for the royal graves what would be a decent antiquity at that date and shall find that 3500 B.C. is not excessive.

More detailed study of the objects will yield further arguments. I do not think that they will seriously modify the arguments and impressions which I have summarized here, but even if they did tend slightly to reduce the dating I have favoured, the main position would remain unassailed. The earliest of the graves (and I am not speaking of the royal graves alone) bear witness in their contents to a civilization already old and with centuries of apprenticeship and development behind it. The legendary dynasties of Kish and Erech are based on the fact of a very ancient culture, only the closing phases of which are illustrated by our cemetery or cemeteries at Ur ; the difference of a hundred years or so in the dating of a grave matters very little in view of what must have gone before, and cannot impair the claim of Mesopotamia to have led the way in the march of civilization in the western world.

# Prehistoric Cart-tracks in Malta

by T. Zammit

ONE of the problems that students of Maltese archaeology have to face is the meaning of the numerous cart-tracks furrowing most of the barren rock-surfaces. These tracks are scarce on Gozo and non-existent on the islands of Comino and Filfola.

They consist of pairs of parallel grooves running for long distances on the hard coralline limestone patches, now straight and now curved as if avoiding an obstacle or having to change their direction. The grooves are mostly v-shaped, usually from 10 to 20 inches wide (25–50 cms) on the surface, and about 4 inches (10 cms) at the bottom. Between the two grooves, measured at the middle part, the distance is nearly always 4 feet 6 inches (1.37m). Naturally the depth of the grooves varies with the lie of the ground ; if there is a strong tilt sideways, one of the grooves is shallow whilst the other is very deep. Grooves over one foot deep are very common. The carts that run over these roads had an axle-tree about four and a half feet long and the wheels had to be very high to move freely in the grooves. The modern country carts of Malta have an axle 5 feet (1.53m) long and a diameter of 5 feet 3 inches (1.60m).

I do not think that there can be much doubt as to the kind of vehicle used on this track: they were, very probably, strong heavy carts with solid wooden wheels without a metallic tyre. It has been suggested that some kind of sledge with strong runners may have been used instead, but when one is familiar with the sharp curves frequently met with along these tracks the idea of a sledge is abandoned, as no runner could be made to glide at all under such conditions.

If no account is taken of the long time required to wear out the hard coralline limestone to the actual depth of some of the grooves, it seems hard to believe that a wooden wheel could cause such erosion, but time explains the difficult task. The grooves are triangular in section and very smooth. Of course pebbles and sand between wheel and groove would act as an abrasive and help the erosion. The grooves caused by modern wheels, fitted with iron tyres, are differently shaped

from the smooth prehistoric ones ; they are rectangular in section and the wobbling of the wheel abrades the sides and wears them away rapidly and irregularly. These grooves appear therefore wide and straight-walled and are at once recognized by the most superficial observer.

These cart-tracks, for no other name can be given to them, are to be met with on practically every stretch of barren land on the slope or on the top of a hill. They are sometimes seen to run in single pairs wending their way over hill and dale but more often they run in groups, crossed occasionally by other tracks coming from a different direction. In some cases their number is so great that one wonders how many carts had been detailed to carry on this heavy traffic. A group of ten pairs of ruts run close to each other on the sloping surface of the hilly ground to the east of Nadur tower in the Benjemma district. They cross the main road at the end of the slope and may be followed in a southern direction to the west of Tas-Salib road towards Ghemieri. Another numerous group of these ruts covers the undulating ground of the same district to the south-east. The uneven surface is furrowed deeply by over twelve pairs of cart-tracks. They are far deeper ruts than those in the group just mentioned, but they are less striking to the observer because they cannot be seen on a long stretch of ground like the others, as they disappear here and there under modern fields and boundary walls.

One gets an impressive sight to the south of the Boschetto gardens, where the barren slope running towards the Inquisitor's Palace and the Tal Ghalia plateau is furrowed by seven parallel groups of ruts covering the surface like so many railroads built by a modern engineer.

On closely observing these primitive roads one is impressed by the fact that the grooves run by the side of a narrow strip of rock which cannot be called a path on account of its rough, clumpy, uneven surface. It is unthinkable that the carts were hauled by hoofed animals, for no such animals could drag heavily laden carts over such roads and survive after a hundred yards of such toil. It is further observed that no signs whatever of the wearing of the rock by hoofs striking against it for hundreds of years is to be perceived.

There are many cases when an old cart-track has been used in later times by modern carts drawn by horses, mules or donkeys. In these cases the worn condition of the path between the ruts is obvious, At distances corresponding to the steps of the animals, notches and

furrows are formed by the continuous pounding of the animals' hoofs, and where the rock is not very hard the path is broken, and from a ridge it becomes hollow to such an extent as to become difficult and even dangerous to use. These practical considerations lead to the conclusion that the carts destined to move over these rough paths were dragged or pushed by human power. It was team work, most probably very laborious, but surely more adequate to cope with the sudden changes of gradient, the sharp curves of the ruts, and the hundred and one obstacles encountered on the rock roughened for ages by natural agencies.

The question next arises as to how these tracks began and how it was possible for the numerous vehicles to keep on the same tracks before they had become sufficiently deep.

One may imagine the rocky ground being originally covered with soft loam on a level surface ; it is easy then to believe that the first carts left a notch in the ground that could be seen by the carts that followed afterwards. In time the rut deepened, the rock was attacked, and in due course grooved deeper and deeper by the passage of the wheels. It is, however, difficult to account for the tracks on sloping ground where a soft loam was not likely to exist. Under these circumstances a cart could never follow the identical track of the one that went before it in an open country, unless helped to do so either by special posts or other guides, or by notching the first tracks. The capable and energetic people who built the megalithic monuments and who conducted the enormous traffic on the roads under discussion, certainly would not shirk the preliminary work of cutting the necessary notches to initiate roads which they required as essential for their welfare. It is evident that on the whole the cart-tracks were started by human labour, to be deepened later on by use. Definite signs of carefully laid sets of cart-tracks are seen on different sites of the island. At Minsia on the St. Julian's heights, between Sliema and Birkirkara, we have a system of shunting which cannot in any way be attributed to mere accident. (Plate IV). On this table-land one pair comes straight from a northern direction whilst another pair enters the same ground from the south. About the middle of the ground one of the pairs deviates gradually to the left and the other to the right, and after describing a curve each pair joins the main ruts on the opposite side to that from which it started. The two pairs of ruts cross each other before joining the main trunk, so that two carts moving from opposite directions are free to continue their course by shunting on to the side track.

The disintegration of cliffs and their cleavage—with detachment of the parts that break off, the cutting of rock whilst quarrying stones for building purposes, and covering large tracts of rock surface with soil to make fields, caused many cart-tracks to disappear in part or altogether. This, naturally, led to great confusion in the attempt to determine the course of the tracks, and induced many people to believe that the cart-tracks existed when these islands were connected with a continent and consequently were not meant for a local traffic. Independently of the fact that these islands could not have been inhabited by an industrial population at the end of the last ice-age when the separation from the continents took place, the assertion that some of the ruts disappear on the seashore in the direction of the sea has never been proved in any way.

There is only one case where a pair of ruts appears to enter the sea and that is in the bay of St. George at Birzebbugia. These cart-tracks skirt the bay and plunge into the water in a western direction, that is they follow the bend of the bay landwards, hugging the shore. They probably appear once more on the other side of the bay, now covered with silt and with field soil further to the south-west. This disappearance of the cart-tracks into the water is certainly due to the subsidence of the soil long after the tracks were formed, for a number of bell-shaped pits that once studded the shore of the bay are to be seen at the bottom of the sea. In any case, the cart-tracks are not directed towards the open sea and can never prove that they were meant to run beyond the present shores of the island.

Ruts appear in some cases to run at right angles to the cliffs to the south-west of the island. These cliffs are miles away from the sea-shore. They are made of the coralline limestone and, having a layer of clay under them, cleave off easily on the free side. Large loose masses of rock break away and slide down the side.

At Mtahleb, a pair of cart-tracks appear to end at the edge of such a cliff, but looking down the side at that point one can see the cart-ruts in a direction nearly parallel to the cliff on the detached mass. The tracks, therefore, were broken just at the point when they were changing their direction, that is when about to follow the bend of the cliff. Other cart-ruts in the same locality move in a line with the cliff for a considerable distance.

If some imaginative persons have believed that the cart-ruts were in use in palaeolithic ages, others went to the other extreme and attributed them to the historical period of the Roman occupation of

these islands and even to a later time. Although it is very difficult to assign a date to these signs of human activity, there are some positive data which help us to affirm that the cart-tracks existed long before the Roman occupation of these islands, that is before 200 B.C.

Every student of our local archaeology is aware that from time immemorial, the natives of these islands used to bury their dead in rock-cut tombs. Most of these tombs resemble the well known Sydonian tombs of Phoenicia proper, which may be taken to have come in use during the Phoenician occupation. These rock-cut tombs consist of a shaft, the depth of which varies considerably, and a funeral chamber at the bottom cut in one of the sides of the shaft.

On the Mtarfa plateau to the west of the Military Hospital there are numerous rock-tombs of this description in a good state of preservation. Not far from the main road leading to the hospital, the shaft of one of these rock-tombs is found to have been dug out across a very fine pair of cart-tracks (plate I), a clear indication that when the rock-tomb was cut the cart-tracks were no longer in use and therefore cut much earlier than the tomb itself. Similar cases are to be met with in the Falka district on the way to Sebbieh, at Benjemma, and on other open spaces.

From the foregoing considerations it is certain that the cart-tracks were intended for local purposes and are the signs of great activity of the native population extending for long periods of time. What remains to be found out is the approximate date when such considerable activity showed itself, and what was the material transported so persistently along these primitive roads. Superficial observers have often stated that in view of the existence of numerous megalithic buildings in the islands the neolithic people required these roads to cart the large blocks of stone from the quarries to the site of the proposed monuments. This would be a plausible argument had cart-tracks been found close to the megalithic buildings, but unfortunately these primitive tracks are never found in their vicinity. They occur only on the flat top of hilly districts, or deeply furrowing the sides of the hills from the valleys and ravines at their feet to the highest table-land

The carting of stones, large or small, is out of the question, as stone is found everywhere and when required for ordinary use could be cut on the spot. It is evident that the material transported was abundant at particular places and badly lacking in others where its value was far greater than the labour required to get it there. By

elimination the only precious material to the primitive man was the field soil, capable of growing his food and making his life possible in a barren land such as we have reason to believe Malta was in the neolithic period.

Walking across the country, one is struck at once by the number of terraced fields along scarped, ragged hills, ensconced in odd corners, and stretching on the table-lands on which soil could not form and collect by natural means. A little thought brings a clear conviction that the terracing on the slopes of the hills is not the result of natural agencies. Even if soil formed in fissures, nooks, and corners of crumbling hill-sides, it would have a downward movement in the course of ages. Wind and rain would, in a comparatively short time, move the sandy soil and wash it as far down as it would go.

When the energetic neolithic population cast their lot on these islands they could not, in the course of time, be satisfied with the tilling of the soil collected in the valleys and the ravines ; when the population increased, the food supply had to be augmented as a scanty soil cannot support a growing population.

Nobody can doubt the enormous activity of a people who covered the island with megalithic monuments, and as this people had to live at the same time that it quarried stones and erected buildings, part of their energy was surely employed to increase the number of fields and their area. The fields in the valley could not satisfy their increasing numbers and they had to aim higher, and try to carry up some of the surplus soil stored for centuries in the ravines, and by their united effort reclaim the wild land. Here was therefore work of the greatest magnitude to occupy thousands of people for ages. The sloping hills did not deter them from their task, carts were devised and constructed, and the precious soil found its way higher and higher on the barren hills. This huge work of a large and peaceful society has never been adequately appreciated, although it must have been greater than the result apparent to us. Walking along the high table-lands in Malta, one is at once struck by the existence of extensive rubble walls, high and very well constructed, that once enclosed fertile soil but now stand abandoned with nothing beyond them but barren rock. Nobody would dream of building high walls to enclose an empty space, yet such walls are abundant on the extensive rocky surface to the south of Boschetto, towards the Tal Ghalia plateau, at Benjemma, and practically on every top of a hilly ground.

Far more fields existed in neolithic days than those in use at

present, but in the course of centuries those which for some reasons were not properly attended to were slowly but surely washed away by rain and deposited once more in the valleys from which they had been removed.

The farmers on these high lands had not only to provide the soil but, with incessant toil, had to keep the red earth where it was spread with infinite labour. Yet the great effort of the neolithic population is hardly recognized by their offspring who are apt, now and then, to admire their megalithic monuments, but give no thought to the greater performance of turning the rocky hills into arable land.

Mr Sidney Freeman suggests that another very precious element might have been carted along the furrowed slopes, and that is water. Malta has always been a dry country and the few springs that gush out of the rocks are only found on low ground, certainly below the lower coralline limestone. In the absence of tanks, water had, certainly, to be carried up from the valleys below and this must have been another necessary but arduous task of the neolithic farmer.

It was also essential that water should be carried to the shores of the harbours which had no springs in the vicinity. Ships must have called often at Malta, judging by foreign stones such as flint, obsidian, and lava, which are not to be found locally, and yet freely met with in all Neolithic and Bronze Age stations. The cart-tracks seen on the shore of St. George at Birzebbugia may have been detailed for the water service, for near that harbour no water is to be found except what was probably stored in the 35 pits cut along the shore, close to the sea.

This is the tale revealed by the modest cart-tracks that are seen to wind their way from valleys and ravines up the craggy slopes of hills.

I have often watched the deep winding grooves that, from the Kligha valley, reach by slow degrees and devious ways the first slopes of the Kallilia hill, to the north of the Mtarfa heights ; as soon as the cart-tracks are firmly established on the hard rocky ground they proceed straight up to attain the first heights of the Benjemma hills, the Nadur ridge. At this point other cart-tracks may be seen to reach the table-land from the south-east and the south-west. Along these paths millions of cart-loads of earth found their way, ready to fertilize those barren rocks which in many points are again being denuded by natural agencies.

Seen in this light the huge buildings of Hajar-Kim, Mnaidra

and Tarxien must pale before the fertile terraces of Benjemma, Naxxar, Wardia, Dweira, Mgar, splendid monuments of the will and the energy of a people who, determined to make the most of the rocky land on which Providence had cast them, with the most primitive tools covered the land with fertile soil, and raised the finest buildings of their type in existence to the Divinity that helped them in their difficult enterprise.

# Forerunners of the Romans

by D. Randall-MacIver

THE standard Roman histories, especially when written by authors who have an undisguised contempt for archaeology, give very little idea of the civilization and development of Italy before the later days of the Republic. They are histories of Rome but not of Italy. And so the reader is subconsciously led to suppose that the Romans were the most important and the most advanced people on the peninsula, who gradually extended the benefits of their superior civilization over a series of more or less barbarous neighbours. This is *a* complete inversion of the real facts. The Romans of the Republic were a rather backward people, and it was hardly before the second century B.C. that they could begin to rank as the equals of the Italian provincials in general refinement and culture. Incessantly occupied with the wars which were essential to their very existence, the Romans had no leisure, even if they possessed the inclination, to cultivate the arts and humanities. But, while the future head of the world was struggling for bare life, a rich Italian civilization had been born and developed in the independent territories which had not yet fallen under her sway. Before ever they came under the organizing and levelling domination of the central capital, Etruria, Venetia, Lombardy and Picenum had each evolved its own distinct and very valuable local culture ; while the whole south from Naples to Brindisi had been civilized by Corinthian and Ionic influence. Rome when she conquered and annexed these territories in due sequence fell heir to a fully finished product. Italy had been created, but not by Rome ; the task that fell to the Romans was much more suited to their peculiar abilities—they had to organize and administer the country. But it was a country already fully reclaimed from the wild, inhabited not by barbarous aborigines but by a group of peoples most of whom had arrived at a very high grade of civilization, which fully qualified them to educate their political masters. Agriculture was practised on a large scale ; wealthy and important cities had existed for centuries ; an extensive foreign commerce had long been conducted both by land and sea, not only

with the Mediterranean but with distant parts of continental Europe. The houses of Etruscans and Venetians, Capuans, and Cumaeans were full of objects of art and luxury unknown to the fellow citizens of Cato. It may be of interest therefore briefly to review the stages by which the making of Italy as distinct from that of the Roman state was achieved, and to consider who were the principal peoples that contributed towards it, as well as to enquire whence they derived their origin and their culture.

It is necessary to begin at a very early date because the permanent background of the Italian population was laid down several thousand years before Christ. We may indeed omit as of very slight importance the poor savages who picked up a precarious living in the immeasurably distant ages of elephant and cave-bear. These formed only a very tiny proportion of the eventual population, and had no effect whatever on its progress and development.

It is their successors in the late Stone Age who must really be considered for all practical purposes as the Aborigines. These neolithic men however were not merely the forerunners, they were literally the ancestors of far more than half the Italians of Roman days, and even of our own time. Their origin is unquestioned ; they belonged to a large race-family which became gradually differentiated in quaternary times in some parts of Africa north of the tropical belt, whence they spread all round the edges of the Mediterranean. The Italian branches of this well-named 'Mediterranean Race' migrated several thousand years before Christ, and the majority made their way by the Straits of Gibraltar, first into Spain and then on by the Riviera to north and central Italy. Their path can be traced by the products of their settlements, which are so precisely similar along the whole route as to make it certain they were the work of a single race. It is usual to call this people the Ibero-Ligurians, which is a useful name as it recalls their ethnic origin and affinities.

The Neolithic race which entered the country at this very remote period has remained undisturbed in many regions down to the present day, and has always constituted a numerical majority of the whole Italian population. It may be remarked in passing that it was one of the three elements which combined to form the Roman people, and was probably the most durable of the three. On the east of the Apennines the descendants of the Neolithic men resisted all attempts at invasion during the Bronze and early Iron Ages ; and under the Roman domination continued to occupy half the Adriatic coast as well

as a large part of the mountainous interior. Their most powerful and important representatives are the Picenes and Sabines of the historians.

In north Italy and on the west of the Apennines the Ibero-Ligurians were subdued, as will be seen, by invaders of wholly different origin, but though dominated and overshadowed they always remained a far from negligible element. South of Naples, on both sides of the peninsula, this same Mediterranean race has always been not only the principal but almost the only factor in the population. It is thought to have come in originally by a separate process of migration from that which colonized the northern half of Italy. The Neolithic men of the south are undoubtedly of the same origin as the Ibero-Ligurians, but as their civilization shows many minor points of difference it is well to call them by a separate name. They may be termed Siculans, inasmuch as they penetrated to their eventual homes by way of Sicily, and were reinforced from time to time by overflows from that island. But the exploration of southern Italy is still so imperfect and incomplete that theorizing is dangerous. Accordingly in the remainder of this essay I shall scarcely speak of the south, but shall confine myself almost entirely to the well-studied regions of the north and centre.

The second great moment in the prehistory of Italy is when bronze and copper begin to affect the life and industries of the inhabitants. This moment synchronizes with the first waves of that transalpine immigration which eventually modified the constituent elements of the whole north and a great part of the west, but left the east and south untouched.

We may select the year 2000 B.C. as a point which very nearly corresponds to the date when these changes first began. This is chronologically exactly as many years before Julius Caesar as the beginning of the twentieth century A.D. is after him.

By 2000 B.C. not only Italy but the whole of central and western Europe had left savagery far behind and, though immeasurably inferior to Egypt, Crete, Asia Minor and Mesopotamia in the scale of civilization, had arrived at a method of life which seems quite rational and intelligible to the modern mind. In the several thousand years during which they had occupied lands cast in practically the same geographic and climatic forms that they bear today, the Neolithic peoples had made immense strides in development. The general aspect of their life is very similar in whatever part of Europe it may be studied. They were living in settled communities which presuppose

a high social organization. Nomadism had been abandoned, the hunting-man of the old Stone Age had either vanished or been converted to new ways. Agriculture, the farming of stock, and the exercise of simple industries like pottery-making and weaving, produce the impression of an existence which may be called primitive but is by no means uncivilized. Only the dearth of raw materials, and particularly of metals, seems to condemn western Europe to stagnation while the eastern Mediterranean is experiencing its first phases of development.

But already several centuries before 2000 B.C. inroads had been made upon the isolation of Europe, which, as they became more frequent, led to a transformation of all European life. These were due to the explorations of prospectors from Anatolia, Crete and the Levant, searching for the metals which they had long used but required in larger quantities than their own countries could furnish. Their quest led first of all to the opening up of the copper supplies in Spain, and the discovery of the mineral wealth of Hungary and Bohemia. The effect on Italy however was only indirect, for there is no evidence that the mineral wealth of Tuscany was divined till much later. As early as about 2400 B.C. there are indeed several instances of the occurrence in Italy of bronze daggers identical in type with daggers found in Spain, Cyprus and Crete. These may have been brought in by sea-commerce, but the transition from the Neolithic to the Bronze Age in Italy was not effected by such sporadic communications. It was due in the main to an immigration from the north, which constitutes the second great step in the formation of the population.

The first stage of this immigration is revealed by the appearance of an entirely new people, overflowing apparently from the highlands of Switzerland. Like the Swiss lake-dwellers they made their settlements in villages built upon piles in shallow waters for purposes of defence. Gradually they extended their occupation over the whole chain of the Italian lakes from Maggiore to Garda, and even as far as the swampy regions about the Euganean hills in Venetia. No skeletal remains of them have been found, but from their character and place of origin it seems a probable inference that the lake-dwellers belonged to the type of *Homo Alpinus*, a short dark round-headed man absolutely contrasting in his physical characteristics with the Mediterranean race.

These Alpines were not sufficiently numerous to affect the population except only in Lombardy and Venetia, but their appearance in itself makes a landmark. It is the first instance of that influx of alien

northern peoples which becomes a regular process in the history of Italy, repeating itself at short intervals throughout the next four thousand years. Their arrival synchronized with a great change in external life, whether or not it actually caused the change as some writers maintain.

Hitherto the Ibero-Ligurians had possessed no better material for their tools and weapons than flint or other stones, often most dexterously fashioned but necessarily limited in usefulness. Now however in the lake-dwellings we discover numerous weapons and implements of cast bronze. They could not have been manufactured in Switzerland, which did not possess the metal ; so it is evident that they must have been derived, directly or indirectly, either from Spain by way of the Riviera, or else from Hungary and Bohemia. The types indicate that the latter was the principal source. There was already a flourishing metal industry on the Danube, and great commercial routes had been opened up all over central Europe. An indication of some slight connexion with these is furnished by the finding of Baltic amber as well as of glass paste in the lake-dwellings ; but the very fact that such objects are so rare proves that Italy had not yet been brought into the full current of European commerce. This great step was not achieved until the next stage of transalpine immigration. The lake-dwellings begin in the Chalcolithic period, the moment of transition from the Stone Age to the Metal Age. Some of them persist as late as 1000 B.C., after which they entirely disappear and it is an unsolved problem what became of the inhabitants. The most probable view is that they became less amphibian in the process of time, and were gradually absorbed by the surrounding Ibero-Ligurians.

The second stage of immigration from beyond the Alps brings in a people of far more importance than the lake-dwellers ; who were perhaps more of a curiosity than a definite link in the chain of the country's progress. The new movement is from the north-east, coming directly from the Danube region, the home of the most advanced European culture of that time. It synchronizes with the full Bronze Age of central Europe, and brings Italy immediately into touch with all the commercial and industrial life that is beginning to develop there. The missionaries of this new civilization are the builders of the Terremare in the Po valley.

The word Terramara is an untranslatable piece of jargon, of which the derivatives are very difficult to manipulate in any language except Italian. It has been universally accepted as the technical term for a

pile-dwelling on dry land, in a style unknown outside Italy though it has certain general analogies on the Danube. As being semi-lake-dwellers the builders of the Terremare might be considered to belong to the same family as the real lake-dwellers, but if so it was at least a distinct branch, and we cannot safely hazard any guess as to their racial characteristics beyond saying that they were quite different from those of the Mediterranean race. Their settlements occupied the whole valley of the Po on both sides of the river, covering therefore a great part of the eastern area previously colonized by the lake-dwellers. Without necessarily subscribing to the popular theory that the people of the Terremare were the direct ancestors of the Latins, I find it so necessary to have a manageable title for them that I shall henceforward refer to them here as the proto-Italici.

They were a people of very strongly marked characteristics; differing in many respects from the Ibero-Ligurians, but most of all in their burial practice. Whereas the aborigines always retained the custom of burying their dead in the ground, the proto-Italici cremated and deposited the ashes in large jars. Entire cemeteries of these cremation-urns have been found outside their villages, built precisely like the villages themselves on piles, which raised them some distance above the swampy ground. This contrast of burial rites serves to distinguish the main currents of Italian population even as late as the middle Iron Age. For the Ibero-Ligurians all over the peninsula maintained the practice of inhumation, whereas all the northern invaders of whatever period belonged to cremating races.

The pile-built dwellings of the proto-Italici have been so often described that they are well known. Only I feel obliged to register a note of warning against the theory that they were laid out on the same plan as Roman cities. Sergi's very telling criticisms on this point have never been satisfactorily answered; and the argument that this system of planning is specifically Latin must in any case collapse if it can be shown that the Romans themselves learned it from the Etruscans.

The importance of the proto-Italici rests on two distinct grounds. In the first place they were highly skilled both in metallurgy and in agriculture, so that their arrival must have had the effect of raising the whole material status of the country. And in the second place they evidently kept up a close connexion with their original home, situated in a densely populated and flourishing region which contained the most thriving industrial centres of the day. Thereby they made Italy the

terminus of branch lines connecting with the great trunk routes of commerce over Europe. It is no anachronism or exaggeration to use these terms in speaking of the Bronze Age. One of the most valuable results of comparative archaeology in the last few years has been the demonstration that, from very early times, a widespread system of commercial intercourse existed all over the continent, from the Black Sea to the Atlantic and from the Baltic to the Mediterranean. The second millennium B.C. was the period of the opening up and exploration of Europe, comparable to the opening up of India and China by the western nations after the 15th century A.D. Metals and materials were the objects of search, and wherever they were discovered it was likely that centres of industry would spring up. Thus in particular the copper of Hungary and the tin of Bohemia had created a populous and flourishing series of stations along the Danube, which became the principal source of the Bronze Age culture of Europe. The proto-Italici formed the liaison between the Danube and Italy, which is the explanation of the whole development of the Bronze Age in the latter country.

For it must be plainly understood that the Bronze Age culture of Italy is in no sense dependent upon the Mycenaean, nor directly derived from it. The analogy of Sicily must not mislead us. Sicily was unquestionably in touch with the Mycenaean world. Mycenaean vases and weapons are found in Sicilian graves and the influence of Aegean culture is unmistakable. But the more we study Sicily the more evident it becomes that the whole development of Sicilian civilization is absolutely independent of Italy. Curiously enough the Straits of Messina form a positive dividing line. Right down into the full Iron Age there is a complete absence of any interpenetration or intercourse between Sicily and Italy. In view of our very slight knowledge of southern Italy in the Bronze Age it might be rash to exclude all possibility that Sicily may have influenced Calabria and Apulia in some slight degree ; but it is certain that no such influence penetrated into northern or central Italy ; the civilization of the north and centre at least is purely continental. With a vivid memory of all the loose statements that have been made upon this subject I feel it necessary to point out the incontrovertible fact that except for a quite doubtful case on Gargano not so much as a sherd of Mycenaean pottery has ever been found between the Alps and the Gulf of Taranto. And, if the bronze weapons and implements are critically examined, it will be found that very few resemble the Mycenaean, and these few are

generally remote derivations modified by passage through Danubian manufactories. Any part of its Bronze Age culture which Italy did not derive from the Danube may be ascribed to intercourse with Spain, which was carried on by way of the Riviera, as is proved by the rock-drawings of Liguria.

A certain amount of maritime trade with Sardinia is also to be inferred, but it was not important enough to have any far-reaching consequences. Occasional objects of Aegean or Trojan origin, such as spiral-headed bronze pins, must have travelled by way of the Danube ; as it is evident that there were no direct communications with Greece by sea. A few examples of amber, which could only have come from distant Jutland, show that the proto-Italici derived some little advantage from the thriving trade between the Baltic and the Danube. But the rarity of amber on Italian sites before the Iron Age suggests that the Terremare were a little off the main amber route, which can hardly have been deflected over the Brenner quite so early as this.

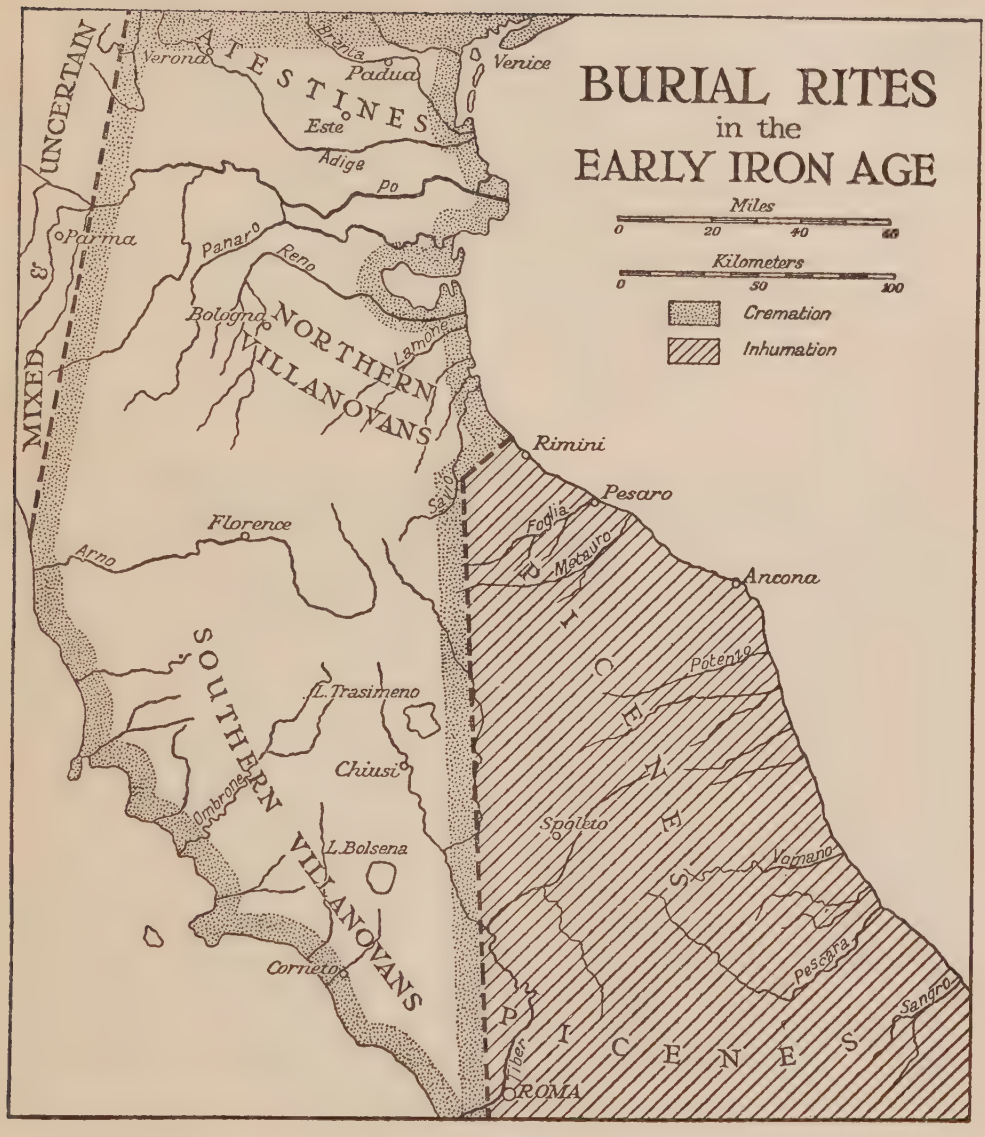
There is no doubt that the proto-Italici were excellent bronze workers, who not only imported but also manufactured many weapons and implements. The actual moulds for casting some of these have been discovered in their settlements. Certain forms of bronze daggers are recognized as specifically Italian, and these have been found on Bohemian sites of 1600 or 1500 B.C. Indeed some entire Bohemian deposits of this date are so precisely like the Italian that it is difficult to say which owed most to the other. The bronze swords of the Terremare, which are quite different from all the Aegean types, may either have been imported or manufactured locally—it is impossible as yet to decide ; but there is ample evidence that the proto-Italici were producers as well as importers.

By about 1500 or 1400 B.C., then, the manufacturing ability of this people, coupled with their extensive commercial relations, had produced a uniform level of material culture over the whole of Italy. There is little or no difference between the bronze weapons and implements of the Terremare and those of Emilia, the Marche and Venetia. In Latium, Tuscany and Umbria few Bronze Age sites have been excavated, but such as they are the products closely resemble those of the north. Even in southern Italy, though this lies outside the range of my review, Terramara types of daggers and sickles have been found. Sicily on the other hand is wholly distinct, working out its own separate evolution with a considerable amount of help and suggestion from Mycenaean sources.

At the close of the Bronze Age then, which may be placed about the 13th century B.C., Italy had become a partner sharing in most of the benefits of European commerce. She had also made a distinct position for herself as an independent manufacturing country, if only on a small scale. The next chapters in the evolution of the country deal with the development of its internal resources, the discovery and exploitation of its mineral wealth and the consequent movements and migrations of the population. These are the chapters which belong chronologically to the centuries 1000 B.C. to 400 B.C. I shall treat these in full detail in my succeeding article, but it will be useful to prepare the way by a statement of the different views as to the origin of the Iron Age peoples and the causes of their distribution.

Between the end of the Bronze Age and the beginning of the numerous Iron Age cemeteries all over northern and central Italy there is an unfortunate gap, which leaves the solution of some capital problems still uncertain. For a period of about two centuries the archaeological evidence is extremely slight ; and the attempts to bridge the gap by prophetic hypothesis, though attractive, are not wholly convincing. If we pick up the thread again about 1000 B.C., when a considerable amount of comparative evidence is available, the map of Italy may be shown divided into distinct homogeneous compartments on the basis of burial custom. The map here reproduced demonstrates that west and north of a line drawn from Rimini to Rome the entire country is given up to the practice of cremation. A very small proportion of earth-burials may still be found scattered through this region, doubtless due to the continued presence of some of the original Ibero-Ligurians. East of this line cremation is practically unknown ; the sole rite is inhumation. The interpretation of this is that on the east of the line the original Neolithic population, which may be called the 'Picene' from the name of the tribe best known to history, has always remained unchanged ; while west of the line the same original population has been swamped by cremating immigrants who have come in between 1300 and 1000 B.C. The date of 1000 B.C. is a convenient point to take for consideration, as it eliminates the disturbing element of the Etruscans, who did not arrive till the end of the ninth century.

Now the question is, Who are these cremating peoples and where did they come from ? The Italian archaeologists have a ready and very plausible answer. According to Pigorini, who has been followed and supported by most of his ablest contemporaries, they are simply


BURIAL RITES
in the
EARLY IRON AGE
Miles
0 20 40 60
Kilometers
0 50 100
Cremation
Inhumation
UNCERTAIN
MIXED &
ATESTINES
Verona
Padua
Este
Adige
Po
Venice
Parma
Panaro
Reno
Bologna
NORTHERN
VILLANOVANS
Lamone
Rimini
Pesaro
Foglia
Metauro
Ancona
Florence
Arno
SOUTHERN
VILLANOVANS
L. Trasimeno
Chiusi
Ombrone
L. Bolsena
Cornieto
PICENES
Potenza
Spoleto
Vomano
Pescara
Sangro
Tiber
ROMA

the proto-Italici. These are supposed to have abandoned their Terremare for unexplained reasons, and to have proceeded on a conquering march through the Bolognese country and over the Apennines into Etruria and Latium. They would have reached as far as the Alban hills, settled on the Palatine and buried their dead in the most ancient cemetery of the Forum. On this view they would be the direct ancestors of the Romans, as well as the most important factor in the whole population of northern and central Italy.

It is a very attractive theory, and there is no serious objection to it except one, which is that it lacks sufficient evidence to be convincing. There is no such close connexion between the products of the early Iron Age centuries and those of the Terremare as to make it at all necessary that the one should be derived from the other. The intermediate steps are lacking, and we must await the results of more exploration before it can be possible to decide whether they exist or not.

I have recently proposed an alternative theory, which is equally incapable of proof at the present moment, but has certain advantages and should be carefully weighed beside the other in the light of all fresh evidence that may be brought to light in future years. This is that the cremating races are not direct descendants of the Terremare people ; but are related to them by some sort of cousinship, inasmuch as they unquestionably come originally from the same country and belong to the same general type of civilization. I suggest that, as they exhibit considerable local differences in one part of the country and another, they should be considered as three or four separate nations ; which probably came over the eastern Alps in several distinct waves, between 1200 and 1000 B.C. From their distribution a little after the opening of the Iron Age I should enumerate them as the Comacines, the Villanovans—divided into two branches as northern and southern Villanovans,—and the Atestines. I have chosen conventional names of geographic derivation in order to avoid the endless and futile controversy as to the right allocation of tribal nomenclature. The distribution of these several nations is shown on the accompanying map, and in my next article I shall discuss their respective characters and importance.

# The Lausitz Culture

by V. Gordon Childe

On the continent as in Britain the later phases of the Bronze Age are marked by the spread of large cremation cemeteries generally termed urnfields. One of the several groups of urnfield cultures in Central Europe occupies such a pre-eminent position that it may even claim to be the parent of all the rest. It is known as the Lausitz or Lusatian culture after the area where it is most richly and typically represented—a strip in eastern Saxony and western Silesia.

Here the bodies were cremated in *ustrina* close to the cemetery, and the ashes, carefully purified from cinders, were enclosed in clay ossuaries or cinerary urns. The ossuary was closed with an inverted dish, but in all early burials a hole was carefully bored in its walls. It is supposed that this aperture was intended to allow the ghost to escape, and hence it has been called a ghost-hole (*Seelenloch*). The urn, with its cover, was buried in the ground with many accessory vases, presumably containing provisions for the journey into the next world. A barrow might be raised over the tomb, but in all cases the graves form regular cemeteries.

The distinctive mark of the Lausitz culture everywhere is the bi-conical ossuary (fig. 1, 1013) but the accessory vases enable us to distinguish two successive phases in its evolution. In the earlier the pots are ornamented with large conical warts or *Buckeln*; in the later the warts disappear to make room for flutings or corrugations generally oblique but sometimes grouped in concentric semicircles. The older ware too is generally reddish while the later tends to be dark-faced.[1]

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[1] H. Seger, 'Lausitzer-Kultur' in Ebert's *Reallexikon*; cf. also Červinka 'Böhmen und Mähren' ibid; Buchtela in *Jahrbuch der k.k. Zentral-Kommission*, Vienna, 1904 and *Mannus*, xix, (1927) pp. 26ff.

The makers of this pottery must have lived in regular communities; the size of the cemeteries implies as much. At Buch, near Berlin, Dr Kiekebusch[2] discovered one such village. It consisted of wooden huts built of rough-hewn tree-trunks on the very same principle as the American log-cabin. (See plate).

The Lausitz folk were primarily farmers, for sickles and querns are found in the settlements and cemeteries. They possessed tame horses which they controlled by bits of which only the horn cheek pieces survive. But they were also metallurgists, since moulds are found even in the graves. Perhaps they invented the socketed celt. The nearest approach to a transitional form comes from Silesia ; for, assuming with Sophus Müller that the socketed celt was developed out

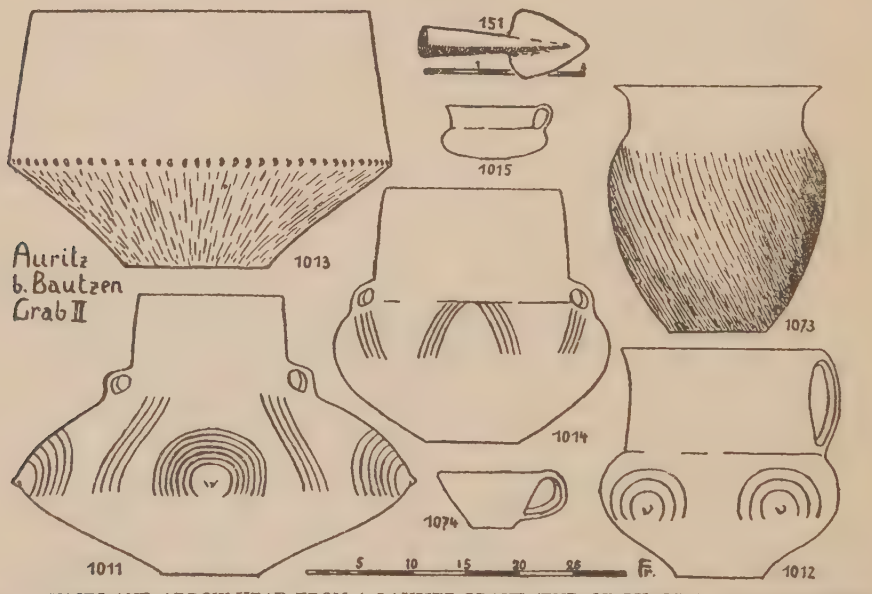


FIG. 1. VASES AND ARROW-HEAD FROM A LAUSITZ GRAVE (END OF PHASE A) NEAR BAUTZEN
(by permission of Dr W. Frenzel)

of a flanged celt held in place by a bronze sleeve that eventually came to be cast in one piece with the celt, the axe-head of fig. 2 approximates to the stage preceding the final disappearance of the saeptum. In any case it was the Lausitz folk who first diffused the use of the socketed

[2] A. Kiekebusch, *Die bronzezeitliches Dorf Buch bei Berlin.*

celt throughout Central Europe. They seem to have been normally peaceable and democratic, but used bows and arrows, spears and bronze cut-and-thrust swords.

Economically and culturally the Lausitz people were the heirs of the Aunjetitz folk who had occupied the valleys and dominated the trade-routes of east Central Europe in the early Bronze Age. A whole series of intermediate forms connects the late Aunjetitz and early Lausitz pottery. Indeed the Lusatian cremators must have been the lineal descendants of the earlier inhumators.[3] At the moment it is uncertain whether the transition took place simultaneously all over the eastern part of the Aunjetitz province—Silesia, Moravia and Lower Austria. More probably the specific Lausitz culture arose first in the Lausitz and Silesia and was spread thence, perhaps by conquerors, to the remaining regions. It is certain that early graves with wart ornamented pottery are commonest in Lausitz and the immediately adjoining tracts of Bohemia, Silesia and Poland. But such are not altogether wanting in Moravia and Lower Austria. Then in the next phase the Lausitz culture spread westward into Thuringia and northwards to the Spree ; the whole of Moravia is covered with urnfields and there and in Lower Austria they contain two-membered fibulae such as were at home in central Germany. Even as far as central Slovakia pure Lausitz cemeteries occur, and north Hungary was overrun by invaders who introduced socketed celts to replace the superior shaft-hole axes previously used and fluted pottery of late Lausitz form. Even in Macedonia[4] a similar pottery appears about 1100 B.C. in the late Mycenaean village of Vardaroftsa in a layer of ashes testifying to a hostile invasion. Reminiscences of Lausitz are even traceable in the proto-geometric pottery of north Greece where painted semi-circles reproduce the fluted semi-circles of Silesia. Evidently the Lausitz folk have advanced from their little corner in the north to colonize all east Central Europe and even make raids on the Aegean ! Obviously too they have taken care to lay hands on the copper deposits of central Slovakia for the benefit of their industry.

East of the Elbe and north of the Ipoly the Lausitz peasants remained the basis of the population throughout the Iron Age ; elements

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[3] von Richthofen in *Mannus*, Erganzungsbande iv, pp. 140 ff.

[4] Heurtley, *Antiquaries Journal*, 1927, pp. 44–59.

of Hallstatt culture reached them first by peaceful penetration and then in the train of equestrian raiders from Illyria who inhumed their dead.

There are also traces of a Lausitz expansion westward, but here the record is much tangled. The hill country of western Bohemia, Bavaria and Wurtemburg[5] was already occupied by virile pastoral tribes interring their dead under barrows. Beside these appear urnfields in the late Bronze Age, clustered principally in the lowlands but extending into the Tyrol and Switzerland. These urnfield folk, like the Lusatians, were traders and farmers, controlling the horse with horn-ended bits and living in log cabins. And they too were interested in deposits of metal, indeed they were apparently the first to mine copper and salt in the eastern Alps.

In some of the western cemeteries, notably near Munich and round Innsbruck,[6] the biconical Lausitz ossuary occurs, but it is by no means characteristic ; the north Alpine urnfield pottery is on the whole different from that in use east of the Elbe, as are the swords, pins and razors ; the socketed celt is rare ; the graves have a more martial aspect and are far more richly furnished with metal gifts than those of Silesia or Moravia. We are not here dealing with a mere extension of the Lausitz culture as there. None the less, whatever other elements were blended in this complex, they may well have been crystallized around nuclei of Lausitz antecedents. That group perhaps supplied leaders who could unite scattered bands and direct their varied industrial activities.

Now it was the north Alpine urnfield folk who synoicized the little hamlets strung out along the shores of the Alpine lakes into the flourishing industrial villages of the so-called 'bel âge du bronze'. Descendants of the same group must have eventually brought to England the bronze types and horn bits represented at Heathery Burn cave and in other deposits[7]. Another branch of the same stock descended the Rhine to Holland[8] whence some at least reached Yorkshire[9].

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[5] Naue, *Die Bronzezeit in Oberbayern ;* Kraft, *Die Kultur der Bronzezeit in Süddeutschland.*

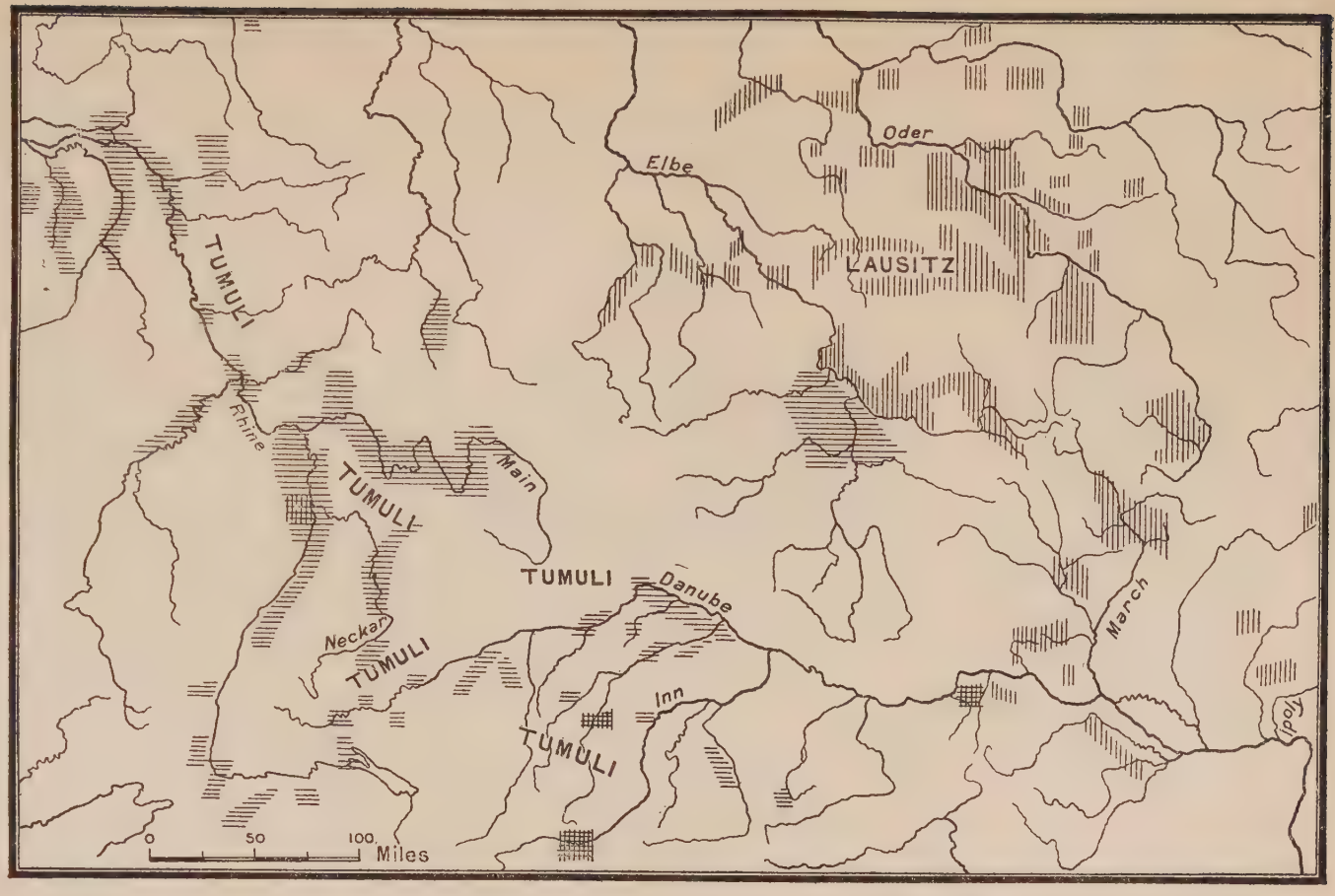
[6] *Reallexikon*, sv Hötting.

[7] Crawford, *Antiquaries Journal*, 1922, pp. 27ff.

[8] *Mannus*, Ergänzungsband v, pp. 50ff.

[9] Scarborough. But here there is clearly a cross-current from Central Germany as Kendrick (*Druids*, p. 39) points out.

## MAP OF URNFIELD CULTURES




Urnfields of true Lausitz type

North Alpine–Rhenish urnfields

Urnfields where Lausitz ossuaries occur with North Alpine

Most authors hold today that the Lausitz folk belonged to the Illyrian stock who have left place-names like Hallstatt, Halle and Halicz (in Galicia) containing the Illyrian root **hal* = salt. The present writer believes, however, that these names were left by the equestrian inhumators who diffused the later (eighth century B.C.) Hallstatt culture. But whatever racial name should be attached to the Lausitz folk it is certain that they played an important role in prehistoric Europe at the end of the second millennium B.C. The diffusion of the socketed celt was not the least of their achievements.

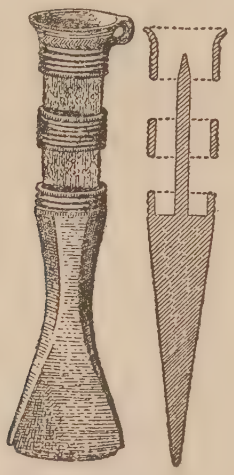


FIG. 2. CELT FROM RATIBOR, SILESIA
(after *Altschlesien*, i. 1922)

# Prehistoric Fortifications in Bavaria

by Friedrich Wagner

(Translated by J. H. S. Moore and the Editor)

BAVARIA is a country that is very rich in prehistoric fortifications. In our early histories the construction of these is attributed almost without exception to the Romans ; it is only the more intensive study of genuine Roman work that has enabled us to distinguish between pre-Roman, Roman and post-Roman remains. Moreover other fortifications, which are today invisible, have been re-discovered by a systematic investigation of the ground. These fortifications were evidently not constructed regularly throughout the prehistoric era but appear at intervals in large numbers, from which we can readily trace their erection to political causes. Two main types can be distinguished at once : circular camps that are built on a hilltop or plateau, and promontory camps, built to protect the landward approaches of a mountain spur or of a spit of land bounded on its other sides by valleys or river-beds. We also find one other type, the rectangular, which was unknown until the late La Tène period and survived for only a short time.

So far only two camps which can with certainty be classified as neolithic have been found and partially excavated. Not far from Landau on the Isar, at a little place called Kothingeichendorf, there is a big circular earthwork about 1½ kilometres in circumference which lies on the steep right hand bank of the Isar (fig. 1). There are two ditches, both of which are now completely level with the ground, though they can easily be traced by their dark filling of cultivated soil which stands out clearly against the natural yellow loam. The earth thrown out of these ditches was originally used for the construction of a rampart. On the river side of the camp, where the slope is almost precipitous, there is no trace of either rampart or ditches. Entrances had evidently been provided at several points. To the northwest was another smaller camp: here two ditches with a rampart between them enclosed a compound with a diameter of approximately 50 metres.

Gaps in the ramparts with corresponding causeways in the ditches provided four entrances, one at each point of the compass. At a distance of 12 to 15 metres from the ditches were found traces of a palisade. Judging from the large quantities of pottery found on the site, the camp had been inhabited by people of the Spiral-ceramic period. This form of camp was given up at the beginning of the late Neolithic period and replaced by larger ones of oval shape having a length of anything up to 150 metres and a breadth of 100 metres. Unfortunately this type has not been fully examined as yet: it belongs to the Münchshofen group which is widely distributed throughout south-eastern Bavaria and is very similar to and contemporaneous with the Bschanz-Jordansmühle (Silesia) and Lengyel type.[1] The number of dwelling places throws some light on the density of the population.

The earthworks at Kothingeichendorf, though far smaller than those at Urmitz, Mayen, Michelsberg near Untergrombach and Lengyel, unquestionably belong to the same period as these great monuments; and, like others, they were doubtless erected to guard against the incursions of northern tribes into the country of the Ribbon-ware folk.

An example of late Neolithic work in Bavaria is furnished by the Altheimer type, which takes its name from a circular earthwork near Altheim, not far from Landshut in lower Bavaria. It displays certain similarities to the pile dwellings in the Mondsee and the Attersee as well as to the Remedello culture of Italy and the megalithic culture of the passage graves.[2] Here, at Altheim, as in the fortified dwellings of the Spiral-ceramic people, it was only a question of defending a small compound. The diameter, as far as it is possible to measure it, is 42 metres. The three ditches are each about $2\frac{1}{2}$ metres broad, $1\frac{1}{2}$ metres deep and from 7 to 10 metres apart. Each ditch was originally strengthened by a rampart and inside the inner rampart was a sort of palisade made of wood and clay. The problem of entrances was solved in this way:—two causeways were left in both the outer and middle ditches about 25 metres apart, while in the inner ditch there was only one of considerable breadth situated about half way between those in the outer ditches. Very little is left of the dwellings as the area has been extensively ploughed, but we do know that they were finally destroyed in battle.

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[1] cf. Ebert, *Reallexicon der Vorgeschichte*, viii, 332.

[2] cf. Ebert, i, 118–20.

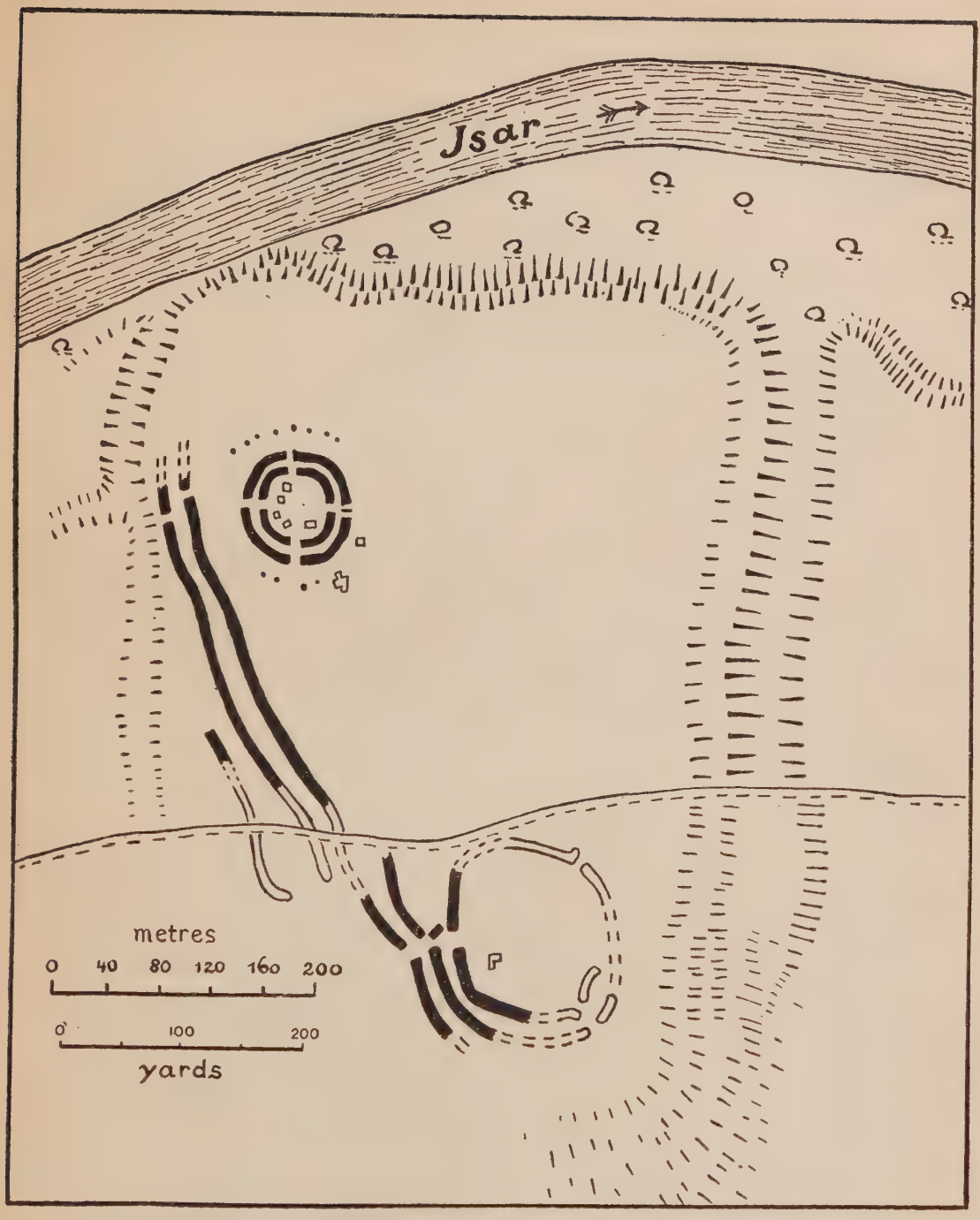



FIG. 1. NEOLITHIC FORTIFIED SETTLEMENT NEAR KOTHINGEICHENDORF, LOWER BAVARIA

The Bronze Age was a time of quiet and peaceful development and it is only towards the end that it was disturbed by the incursions of the Urn-field people. Their progress through the land can easily be traced by the numerous defensive works which they erected. Their circular and promontory camps are always to be found on sites which possess strong natural defences. What appears to us today only as a bank was as a rule a high, dry wall which was made still more inaccessible by the provision on either side of it of palisades and hurdles. The core of the wall was made of stones or sometimes simply of rubble. In the majority of cases there was no ditch, but occasionally, for better protection, there was a second wall outside the main one. The 'Birg' (fig. 2) on the Kochelsee in upper Bavaria is a splendid example of this type of camp. It is a steep and isolated hilltop, one side of which falls precipitously to the lake, the other sides being fortified by a system of walls. The summit is crowned by a small circular camp. Within the outer walls and inside the circular camp on the summit there are traces of dwelling places. The entrances, as is usual in camps of that period, are just gaps, though it would appear that by making the ramparts overlap at these points an entrance passage was formed. It is still quite easy to follow the path that led through these entrances up to the summit.

The gradual intermingling of the Urn-field people with the native inhabitants produced another period of peace in which the Hallstatt culture reached its highest perfection. But even so defensive measures were not completely neglected, for, although no foreign foe threatened the country, it was still a prey to the internal fights of the great war chieftains who sallied forth against each other continually and so made the erection of fortifications a necessity. They, too, chose places well fitted by nature for defence ; their walls were still built of stones placed one on top of the other and not bound by mortar. On the Kirchberg at Schmähing in Swabia post holes have been found at irregular intervals both outside and inside the walls. The posts were originally bound together by hurdles on either side and were also anchored to the wall by beams of timber placed diagonally. The hurdles were covered with a coating of clay which acted as a protection against weather and fire ; this, of course, added considerably to the strength of the wall. The ditch outside was evidently not continuous but a wooden palisade had been constructed which must have proved a formidable obstacle.

The Celts, as they extended the boundaries of their kingdom on either side of the Danube and the Main, were responsible for the

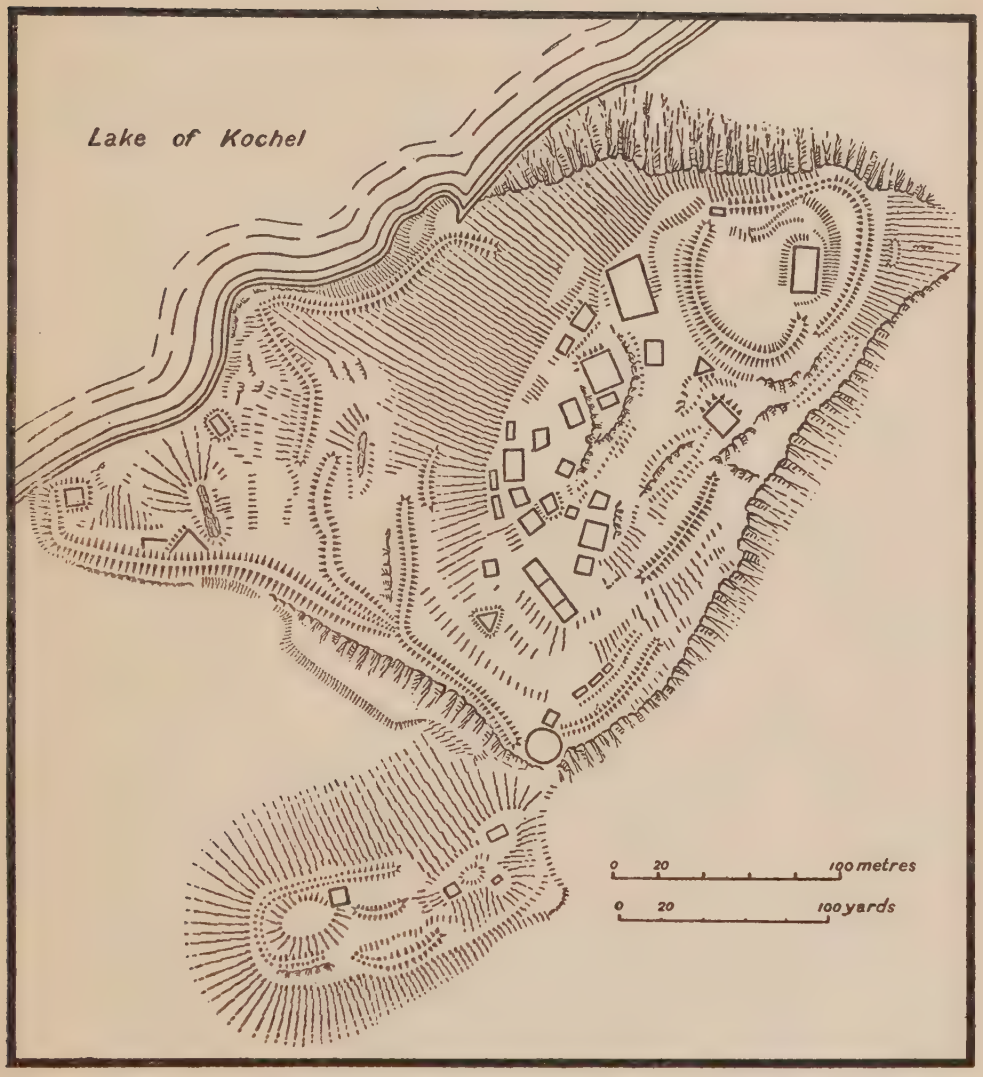



FIG. 2. FORTIFIED HALSTATT SETTLEMENT ABOVE THE LAKE OF KOCHEL, UPPER BAVARIA

destruction of many of the Hallstatt forts; in place of them they built defensive works of their own which enclosed very large areas. There is some doubt as to whether this took place immediately after their occupation of the country or whether, as seems more probable, they postponed it until such time as it was forced upon them by the attacks of the Romans and Germans. These Celtic fortifications are certainly the most impressive that remain in Bavaria from pre-Roman times. Some are situated on hilltops, others on flat ground, while quite a number are built on sites which had been previously occupied. They built either circular or promontory camps according to the configuration of the ground. The area enclosed was usually very big, far too big for a small settlement, and was probably designed to afford shelter to the inhabitants of a whole district together with all their goods and chattels. These Celtic citadels (*oppida*) are to be found all over Bavaria but the majority of them are near the Danube. We know for instance the promontory camp on the Stätteberg, which incidentally encloses within its area a circular camp of the Hallstatt period, and is probably the place referred to as *Parrodunum* in the *Notitia Dignitatum*. We know, too, Manching (*Vallatum*), enclosed almost completely by a circular wall except at one point where the river bed completes the ring of defence : this camp has a circumference of over 6 kilometres. Then there are the promontory camps of Gauburg (*Alkimoennis*, near Kelheim, fig. 3) and the Frauenberg (above Kloster Weltenburg) which was, until quite recently, wrongly identified as Artobriga. There is the circular camp with two concentric walls on the Ringberg near Saal below Kelheim, the site of the camp (now vanished) on level ground near Straubing (*Sorviodurum*) and the high ground near Pleinting (fig. 4) which is fortified. In Passau the Celtic wall of Boiodurum, which had been broken down, was discovered below the late Roman wall.[3]

In choosing sites some attention was evidently paid to ease of communications in addition to suitability for defence and, in the case of Alkimoennis, industrial requirements undoubtedly played some part. There the Celtic town lay at the foot of a fortified hill and this position was chosen on account of the presence on the heights of the Jura of iron which was mined by the inhabitants. There is still abundant evidence to be found of their industrial activity. The fortifications which crowned the spit of land falling sharply to the

[3] Reinecke, *Germania*, iii (1919), 58.

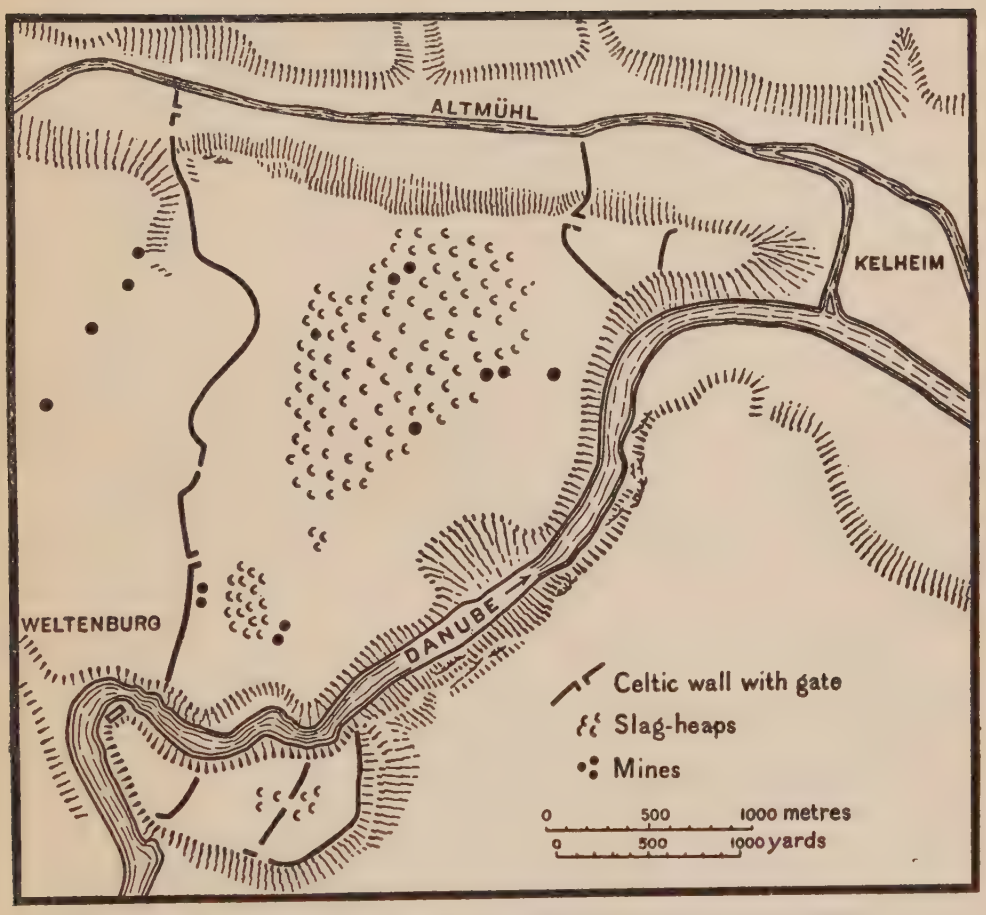



FIG. 3. CELTIC FORTRESSES NEAR KELHEIM (ALKIMOENNIS AND WELTENBURG, LOWER BAVARIA

Danube and the Altmühl on either side formed the acropolis of the city which was laid out in the valley. On the eastern end of the hill was the first rampart, part of which is today in ruins, and part of which remains as it was rebuilt at the time of the Hungarian invasion in the tenth century.

The two ramparts on the western end of the hill begin on the steep bank of the Danube and run to the bank of the Altmühl, making full use the whole way of the existing contours of the land. In length they are respectively 1200 and 4000 metres. The ditches do not appear to have been dug very thoroughly. At the back of the hill and in the valley of the Altmühl can still be seen the entrances, some of which are well preserved. As usual in Celtic works, they are protected by recurved walling. There can be no doubt that the outer wall was built to protect the mining area.

Close to this camp is another smaller camp on the right bank of the Danube above the Kloster Weltenburg. Here again we have three walls protecting a promontory site. The inner wall of the three was greatly increased in height in Hungarian times, when a mortar-built wall, towers and a ditch were all added.

With regard to constructional details of the Celtic wall, it is interesting to note many examples in Bavaria of the *murus Gallicus* mentioned by Caesar. But indeed all the Celtic and pre-Roman walls of Bavaria need much more careful study than they have yet received.

Peculiar to the late Celtic period are the so-called rectangular earthworks,[4] all of which are distinguished by the uniformity of their construction and their clearly marked area of distribution. Archaeologists of the nineteenth century attributed them without exception to the Romans, and, in consequence, came to very sweeping conclusions concerning the occupation of southern Germany by the Romans, but more careful comparison with genuine Roman camps has shown these theories to be untenable. Rectangular earthworks have been found all over the area bounded by the Alps, the Schwarzwald, the Main, the Böhmerwald and the Inn. Indeed there are over two hundred known in that territory although they are not evenly distributed throughout it, far more being found in the south than in the north.

In most of them one side is from 80 to 100 metres long; but the sides are not of the same length. Outside is a ditch of v-shaped

[4] Reinecke, *Der Bayerische Vorgeschichtsfreund*, I–II (1921–2), 39–44.

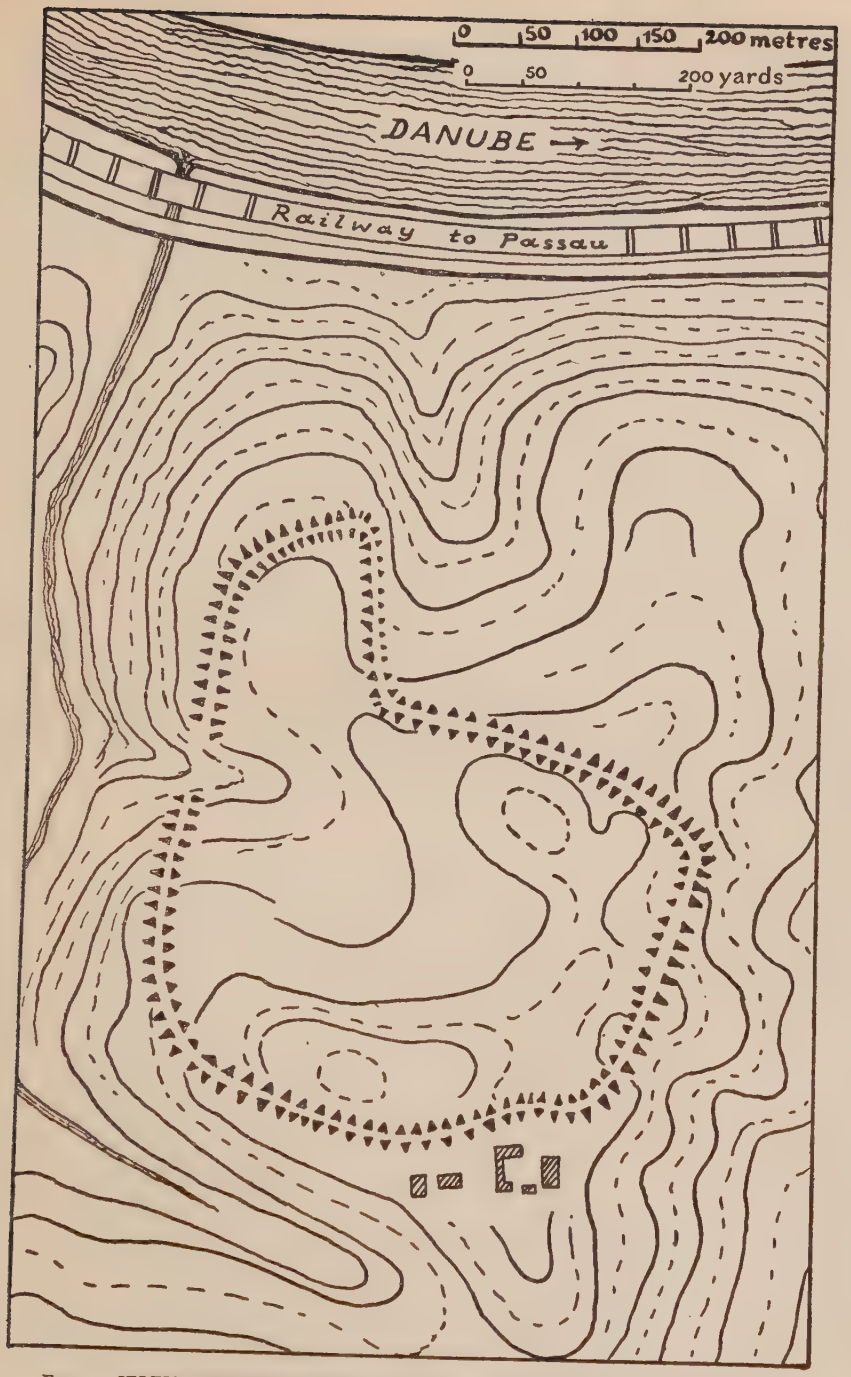



FIG. 4. CELTIC FORTIFIED SETTLEMENT NEAR PLEINTING, LOWER BAVARIA

construction from which the soil was removed to form the rampart. The angles at the four corners are very sharply defined, quite contrary to Roman practice, where the corners are always rounded off. As a result of the earth being thrown up from two directions at the corners, the bank is naturally higher there than elsewhere. There was only one entrance, which was situated in the centre of one side and consisted simply of a breach in the rampart.

Excavations undertaken in Würtemberg, where many of these rectangular earthworks were examined, show that the entrance was paved and was flanked by two rows, each consisting of three strong wooden posts, which may have carried wooden super-structures such as towers or gatehouses, or may only have served to give additional support to the ends of the walls. The ditch runs straight past the entrance and was probably spanned by a wooden bridge. As far as it is possible to estimate them, the height of the wall and the depth of the ditch must both have been about two metres.

Variations from the normal are encountered every now and then ; one side for instance is occasionally not in one straight line, with the result that the camp appears to be five-sided, or the length of one side is greater or smaller than its corresponding side. At Gerichtstetten in Baden[5] it is uncertain whether the camp had three entrances in the first place or whether two more wide entrances were added at a later date.

In some cases the camp is placed inside a surrounding wall. Two big rectangular earthworks of this type can be seen at Deisenhofen, south of Munich (figs. 5 and 6). The most easterly of the two (fig. 5), is built inside a much bigger rectangular earthwork with sides about 500 metres long. It has an entrance on the eastern side, and is so built that its western wall coincides with that of the larger earthwork which surrounds it. The western camp has another earthwork thrown out to protect it ; this is four-sided and is actually wider than the camp itself. In each case the entrance is on the south side. On the north side a deep, dry ravine and a small valley provide additional natural protection. This double camp is again enclosed by a large, rectangular earthwork which is about 450 metres broad and 700 metres long, with one entrance on the south side. Not far from this entrance the Roman road from Salzburg (*Juvavum*) to Augsburg

[5] Schumacher, *Veröffentl. d. Grossh. Bad. Sammlungen f. Altertums- und Völkerkünde*, ii (1899), 75–84.

(*Augusta Vindelicum*) has pierced the ramparts and cuts off the south-west corner of the area, thus proving conclusively that the earthwork belongs to the pre-Roman period. It is worth noting that in both cases the measurements of the inner ramparts and ditches are greater than those of the outer.

At Gennach in Swabia there is a rectangular camp with outer defences in the form of a semicircle, while at Sallach in lower Bavaria, where there is a double camp, the inner and outer fortifications are joined by ditches and ramparts.

The interiors of these rectangular camps have only rarely been excavated and no signs of dwelling places or continuous occupation have been found. Strangely enough, most of the objects recovered were found in the corners. On the evidence of these finds however we can assign all these camps without hesitation to the late La Tène culture of the last century B.C. Contrary to the usual pre-Roman custom, very little use is made of natural features for defence, and most of the camps are either on level ground, on a gentle slope, or at the foot of a small hill; sometimes a camp will be found completely isolated, at other times a large number will be found quite close together. In view of their similarity of outline with Roman camps one would suppose that the Celts were familiar with these.

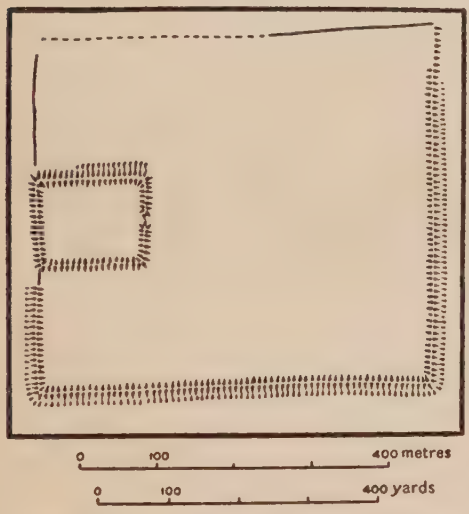



FIG. 5. EARTHWORK NEAR DEISENHOFEN, UPPER BAVARIA

The purpose for which they were built has been variously explained. If we consider their outline (compared with that of the Roman military camp), their size and construction, their measurements, the period of warlike activity in which they were built and the fact that practically no remains of permanent habitation have been found inside them, we should feel bound to assume that they were planned for military use.[6] On the other hand, in view of the poor strategic

[6] Bersu, *Fundberichte aus Schwaben*, N. F. iii (1926), 61–70.

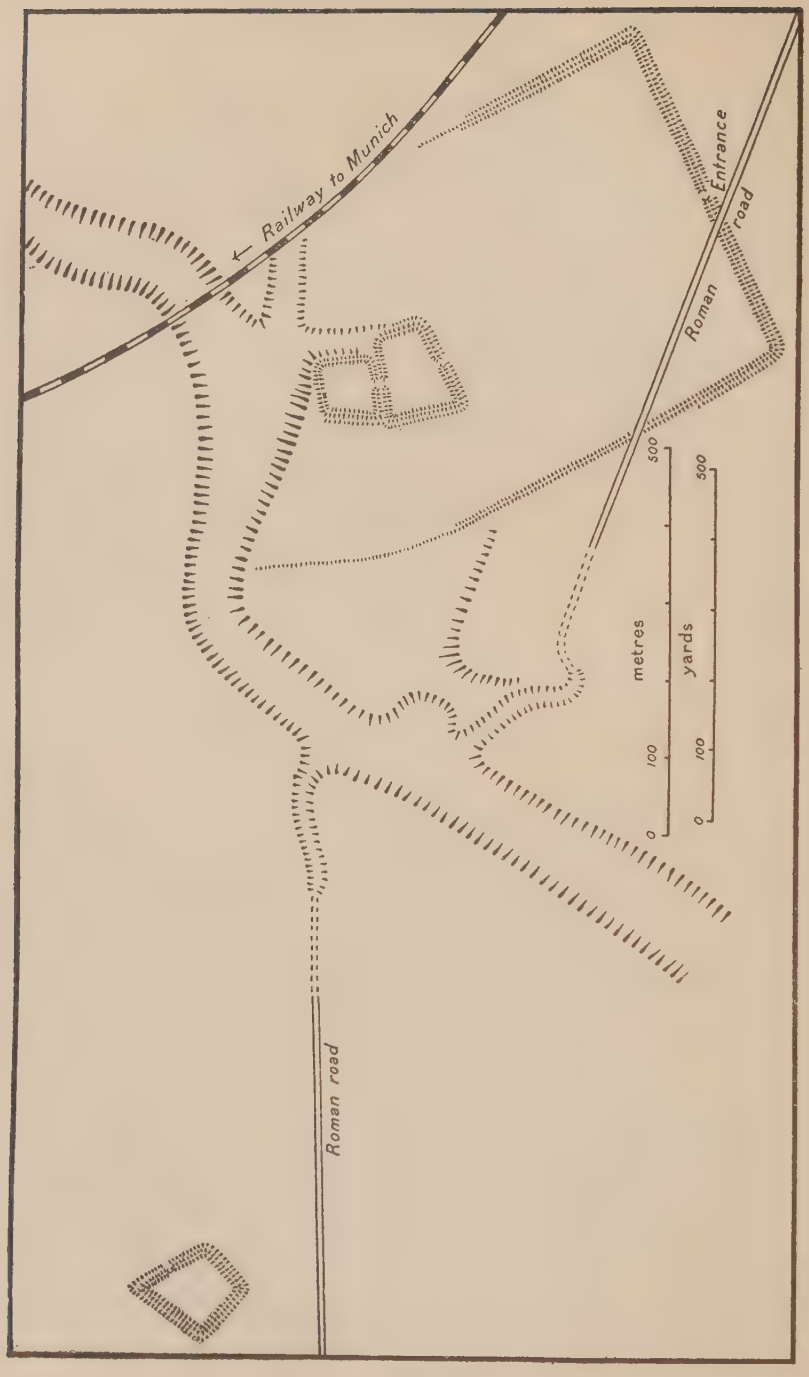



FIG. 6. QUADRILATERAL EARTHWORKS NEAR DEISENHOFEN, UPPER BAVARIA

positions in which they are often placed, the inadequate protection that they would afford against a determined attack, and their abundance in certain districts, they can have had but little military value. We should feel more inclined to regard them merely as defended Celtic compounds.

Unless we should make some entirely fresh discovery through further excavation, the difficulty of deciding between these opinions will remain. We are at least safe in assuming that their construction and the military events of the time were not unconnected, though we do not know whether we should attribute their origin to the campaign of Ariovistus or to the conquest of South Germany by the Romans, and the incursion of the Germanic hordes from the North. Their complete absence in Celtic-Noric territory would thus be explained. The sparsity of cultural remains would tend to show that they were not permanently occupied, and they probably served as refuges in times of trouble to the inhabitants of neighbouring villages or large estates.

Possibly it would help us to solve the problem if we knew the relationship between the rectangular camps and the big Celtic towns.

# The Discoveries at Ur, and the seniority of Sumerian civilization

by H. R. Hall

THE British Museum, jointly with the University Museum of Philadelphia, is carrying out at Ur ' of the Chaldees ' what is now, since a slower pace has set in with the work of Evans at Knossos, the most important British archaeological excavation. Nothing like the recent discoveries at Ur has indeed been seen in a European museum since the appearance of Schliemann's finds at Mycenae, and no such rich find of gold objects has been made since the discovery of the wealth of Tutankhamon. Like Mycenae and Knossos, Mr Woolley's discoveries tell the archaeologist a very great deal that he did not know before. They may justly be claimed as the most important work of the kind now being carried on by any British or American museum or society, whether singly or jointly. The *personnel* is now wholly British, but Philadelphia pays half the piper and calls half the tune. This ' fifty-fifty ' relation of absolute parity between the two museums is as it should be, and the two nations are to be congratulated on their harmonious partnership in the most important archaeological excavation in the world. I stress this for I do not think that the great importance of Mr Woolley's finds is sufficiently realized. Not merely because they contain a lot of gold, as they do (and since gold of itself doth attract a journalist, this fact has received some public attention), but because they tell us so much that is new, which Tutankhamon, for all his splendour, did not. We may find this fact appreciated now that Mr Woolley's first provisional publication of this year's (1927) finds has appeared in the January (1928) number of the *Antiquaries' Journal*, to which I must refer my readers for detail. The finds themselves were on view for six months this year in the British Museum, time enough for all those interested in such matters to have made themselves familiar with the biggest ' scoop ' that any archaeologist has made since Carter found Tutankhamon, or Evans Knossos. I cannot call to mind any foreign work that equals it. The Swedes recently at Dendra

(Mideia), the Germans before the war at Qala ' Sherqat (Ashur), may run it close in interest and intrinsic value of finds, but are only runners-up. The great discovery this year of the tombs of Meskalamdug and Shubad, with their fuller treasure of gold, still more accentuates the value of the Ur excavations.

What Woolley and his helpers discovered last season is a necropolis of early graves, of three different periods, in three superimposed strata. This was found within the later *temenos* wall of the temple, but was no doubt originally outside the *temenos*, which was enlarged. The highest graves are of the time of the Akkadian Sargonide kings (*c.* 2700–2600 B.C.) ; the second series is of the first dynasty of Ur (*c.* 3100–2900 B.C.) : Mr Woolley dates the tombs 'between 3200, or rather earlier, and 3100 B.C. ' ; the third, and lowest series, in Mr Woolley's opinion, dates well before the first dynasty, and is to be assigned the provisional date of 3500 B.C.

The most interesting graves are of course the lowest, as belonging, on Mr Woolley's shewing, to a period previously unknown from contemporary remains except some few of great interest brought to light recently by the Oxford and Chicago joint expedition of Prof. Langdon and Mr Mackay at Kish.[1] The first dynasty we already knew from the contemporary temple-remains at al-'Ubaid, discovered by myself and Woolley, and recently published by us.[2] Graves of the time were found there by Woolley, but those at Ur have far transcended these in interest and in wealth. For they are the graves of the kingly family of Ur itself, of the chiefs of the city at its earliest period of civilization and power, their relatives and their retainers. And they have proved almost to rival the shaft-graves of Mycenae, in their wealth of gold, electrum, and silver, besides semi-precious stones such as lapis lazuli and carnelian. Also the art shewn in the use of these materials for making the grave-goods of the dead royalties and their friends, has been a revelation to us. Mr Woolley, on his reading of the evidence of stratification of the site, considers these treasures to belong to a period anterior to the first dynasty. Their style, on the other hand, does not seem so archaic as that of the objects from Kish, and it may well prove that they belong merely to the beginning of the dynasty, and so are not older than, at the very earliest, *c.* 3200 B.C. Oddly enough, the one object that does not look very archaic, and might well be contemporary

[1] Langdon, *Kish* (1924).

[2] Hall and Woolley, *Al-'Ubaid* (1927) : see review in ANTIQUITY, i, 490–2.

with early Kish, namely the relief (fig. 1) depicting a chariot drawn by onogryphs (?),[3] is distinctly stated by Mr Woolley to belong probably to the second series of graves. Clearly we are not yet sufficiently instructed in the development of art at this early time to be able to dogmatize as to the succession of styles : we must wait for further information. It would not be surprising if Mr Woolley's date for the oldest graves proved to be too early by two or three centuries ; but, on the other hand, he may prove to be perfectly right. We can at any rate say with approximate certainty that they are not older than 3500 or later than 3000 B.C., and that their date may prove eventually to lie midway between the two, or a century later, but on this point we have yet no certainty.

If this were so, Ur I and II would both equate with the first dynasty and the immediately succeeding period, from *c.* 3200 to *c.* 2800 B.C., and we should have to explain certain phenomena of stratification (a blank stratum between Ur I and II), and of the development of pottery in Ur II, Kish, and al-'Ubaid, differently from Mr Woolley. The first word on the subject lies obviously with the excavator and it is to his conclusions, formed on the spot, that first consideration and respect must be given, though modifications from the point of view of the philological and artistic critic must be expected and may or may not justify themselves. Provisionally we will assume with Mr Woolley therefore that *c.* 3500–3200 B.C. is the date of the tombs of Ur I or Ur A ; the latter is perhaps the safest designation, as Mr Woolley may yet find something much older than the oldest of the three cemeteries.

What are the characteristics of the graves of this most ancient Sumerian necropolis of the historical period and what do they contain ? Mr Woolley tells us that in the two older cemeteries, Ur A and B (the latter is superimposed on the former) two styles of burial were in use : (a) larnax-burials, in which the body was either laid in a clay coffin or was placed on the ground and covered over with an inverted clay coffin, and (b) inhumation : ' the body was wrapped up in matting and laid at the bottom of a grave-shaft itself lined with mats ; the offerings were placed beside it, and another piece of matting was spread over the whole, and the earth was thrown back into the shaft. These are the two main

[3] I do not share Mr Woolley's belief that these animals are lions. They have lions' feet and claws, certainly, but their hindquarters and tails are those of asses : nobody ever saw a lion with a sweeping, bushy tail like that. A lion's is like a pump-handle. The heads may have been of lions, but may equally possibly have been of gryphons.

types ; but in the middle and the later periods there were introduced certain modifications of them. Thus instead of the mat-lined shaft we find occasionally a wicker-work coffin, the sides made of normal matting supported by uprights or ribs of stout withy, or more solidly constructed of split withies like a modern hurdle, and instead of the clay larnax there were in two cases regular wooden coffins. Obviously such modifications bridge the gap between the two main types, and it would be hard to decide whether the coffin of withies belongs rather to the inhumation class, because of its material, or to the larnax class, on account of its shape ; but generally speaking we may say that throughout the period 3500 to 2600 B.C. there existed these two contemporary and different forms of burial. It is curious that whereas the clay larnax must have been a more expensive thing than the plain piece of matting and might therefore be expected to connote a richer burial, the facts were the reverse ; in only two cases was a larnax accompanied by really good and numerous objects, and all our best discoveries were in connexion with the inhumation graves'.[4]

Mr Woolley thinks that he noted signs of partial cremation in the older graves : ' as a rule only the head has been burnt, and in some cases the fire has been made outside the grave proper and the bones have not been so much as scorched : this is really but a ritual survival of an older cremation practice'. The German excavators thought they had noted something of the sort in the necropoles of Zurghul and Farah : it will be interesting to see if the observation is confirmed by later finds. Generally other explanations than an attempted cremation-rite are preferred for partial burnings or apparent burnings of this kind. Certainly in later days the practice was entirely unknown, as it was always in Egypt.

In the oldest graves inhumation is much commoner than larnax-burial. The bones were in very bad condition, but, when they could be distinguished, in both types of burial the legs were strongly flexed and the hands brought up to the face, without regular orientation. Clay figurines may have been placed in the graves, large pots were disposed around them, and large model boats made of clay and mixed with bitumen and chopped straw charged with cargoes of small pots, which remind us strongly of the model funerary boats of Egypt, were placed near the body at the bottom of the grave-shaft. The pottery vessels placed round the grave are all *wheel-made* and unpainted ; the most

[4] Woolley, *Antiq. Journ.* (Jan. 1928), viii, 5, 6.

interesting type is an offering-table with shallow bowl on a hollow cylindrical stem splayed out at the foot, and adorned with incised patterns and sometimes triangular holes. Stone vases of steatite and alabaster are common, and the shapes of the latter often closely resemble Egyptian types of the Old Kingdom, especially the plain cylindrical form (fig. 2). Copper bowls and small cauldrons were found, and lamps of copper and silver of a form derived from a shell.

Probably it is the metal-work that attracts most attention in the objects recovered from these graves. The golden *étui* or 'vanity-case'[5] with its ear-pick, head-scratcher, and tweezers (fig. 4), is paralleled by others in silver and copper : in some, the case was of copper covered with leather. Its decoration of fine running spirals in pairs and of zigzags is most important in the history of art. At present it is the fashion to derive the Aegean and Egyptian spirals exclusively from Danubian and 'Black Castle' sources, from Butmir or from Cucuteni ;[6] but this find at Ur brings us back again to the older explanation of an origin in gold wire-work such as we see at Troy II and was assumed to be of Asiatic origin. Is Cucuteni I as old as Ur A ? The golden dagger (fig. 6), recently published in colour by the *Illustrated London News*,[7] is, like its newly-discovered rivals in gold and copper from the tomb of Meskalamdug, as remarkable as the gold and iron daggers from the tomb of Tutankhamon, and is at least 1500 years older than they. The electrum adze-axe (fig. 7), and lancehead (fig. 5), are wonderfully finely made. And the adze-axe is socketed, as also are other copper axes of the same form, and silver and copper axeheads of another type (fig. 9), somewhat like a pick, with a curved lower surface. We also find axeheads with the socket not yet developed : the butt of the head is turned round the haft after being thrust through it, so as to hold faster : the socket is in the making here, and evidently was just invented at this time. Copper spearheads are found with square tangs like the electrum lancehead : the socket had not yet been applied to them. Then there is the jewellery, the necklaces of gold, silver, lapis, and carnelian (fig. 8). The use of silver and lapis is noticeably

[5] *Brit. Mus. Quarterly*, 1927, pl. xxa.

[6] Childe, *Dawn of European Civilization*, p. 27 ; Frankfort, *Studies in Early Pottery of the Near East*, iii, 116 ff. The decoration of the Ur *étui* is not unlike that of the bronze axehead with pick in form of a panther recently found at Mallia in Crete (Charbameaux, *Mém. Fond. Piot.*) which is of M.M.I. date (*c.* 2000 B.C.)

[7] See also *Antiq. Journ.*, viii, pl. 9.

more common than in Egypt, as was to be expected from the fact that both these materials were more easily accessible to the Babylonians than to the Egyptians : Egyptian silver must always have come from Asia Minor and lapis from Persia. As early as 3000 B.C. silver was not known to the Egyptians, though lapis was. The goldwork of these Sumerian necklaces is very fine ; the gold beads are often worked in raised spirals that remind us of Greek work, while the general *facies* of the jewellery is extraordinarily reminiscent of the Egyptian jewellery of the twelfth dynasty from Lisht and Dashur. There is however no inlay in gold of the Egyptian and Minoan character, but coloured ivory and stone were patterned together as we see in the remarkable gaming-board (U. 9000), and inlay of this kind we know at the time in the eyes of figures of men (fig. 3) and animals. The working of the stone beads is extremely good, those of lapis being especially fine. And their arrangement is tasteful, generally speaking, and such as a twelfth dynasty Egyptian would have approved, though it must be confessed there are others that he certainly ' would not have been seen dead with.' These are set of extraordinarily large beads of gold, lapis, and carnelian, of Brobdignagian and tasteless proportions such as no Egyptian could have tolerated ! These beads are among the more astonishing products of this period, and it is hard to believe that they really are, many of them, as old as the early Sumerian period. Yet the evidence is quite conclusive on that point. They are at least as old as 3000 B.C. The twelfth dynasty Egyptian necklaces with which we have compared them are a thousand years younger. Very remarkable is the gold chain-work. An imitation chain of the same kind is a curious development. But the grave-ornaments the most unexpected, perhaps, are the gold diadems, of which the larger belongs to the second, or middle cemetery. It has rather roughly outlined figures on it of men and animals. Here we have the prototype of the gold diadems of Mycenae. And other such diadems, and gold masks, again like Mycenae, which have been found in Assyria, and have been credited to the Parthian period, are shewn by this discovery to be probably much older.

An extraordinary little bibelot of gold is an amulet in the form of a sitting bull, only 16.5 mm. high. What is remarkable about him is that he has a little false beard originally tied on with string ! Mr Woolley gives a very possible religious explanation of this appendage, but what interests us more here is the wonderful workmanship of this little example of the goldsmith's art : ' the body is somewhat summarily rendered, but upon the head no pains have been spared. Equally remarkable is

the fineness of work in two other gold amulets found, representing birds'.

Utensils, such as spouted vases and lamps, were made of silver as well as copper. A beautiful little lamp of silver, in the form of a spouted bowl, is fluted and engraved. ' It belongs to the earliest period (3500 B.C.) and is an astonishing example of the skill attained by the metal-workers of that date ; the fluting is almost mechanically regular, and though the engraving is quite simple in design, it is in spacing and proportion perfectly adapted to the form of the vessel'.

The relics from the second or middle cemetery, which is certainly of the first dynasty, probably its end, are poorer in character and workmanship. But we see among them the first of the large cylinder-seals, which in the first or uppermost cemetery are numerous. They are characteristic of the Sargonide or Akkadian period. A remarkable find, unconnected with the cemetery, was that of a rectangular stamp-seal of steatite with a figure of a bull engraved upon it of precisely the same type and style as the ' Indo-Sumerian ' seals found at Mohenjo-Daro in Sind and Harappà in the Punjab, but with a cuneiform instead of an Indian inscription. This clinches the matter of a connexion before 2000 B.C. between India and Mesopotamia (probably by sea).

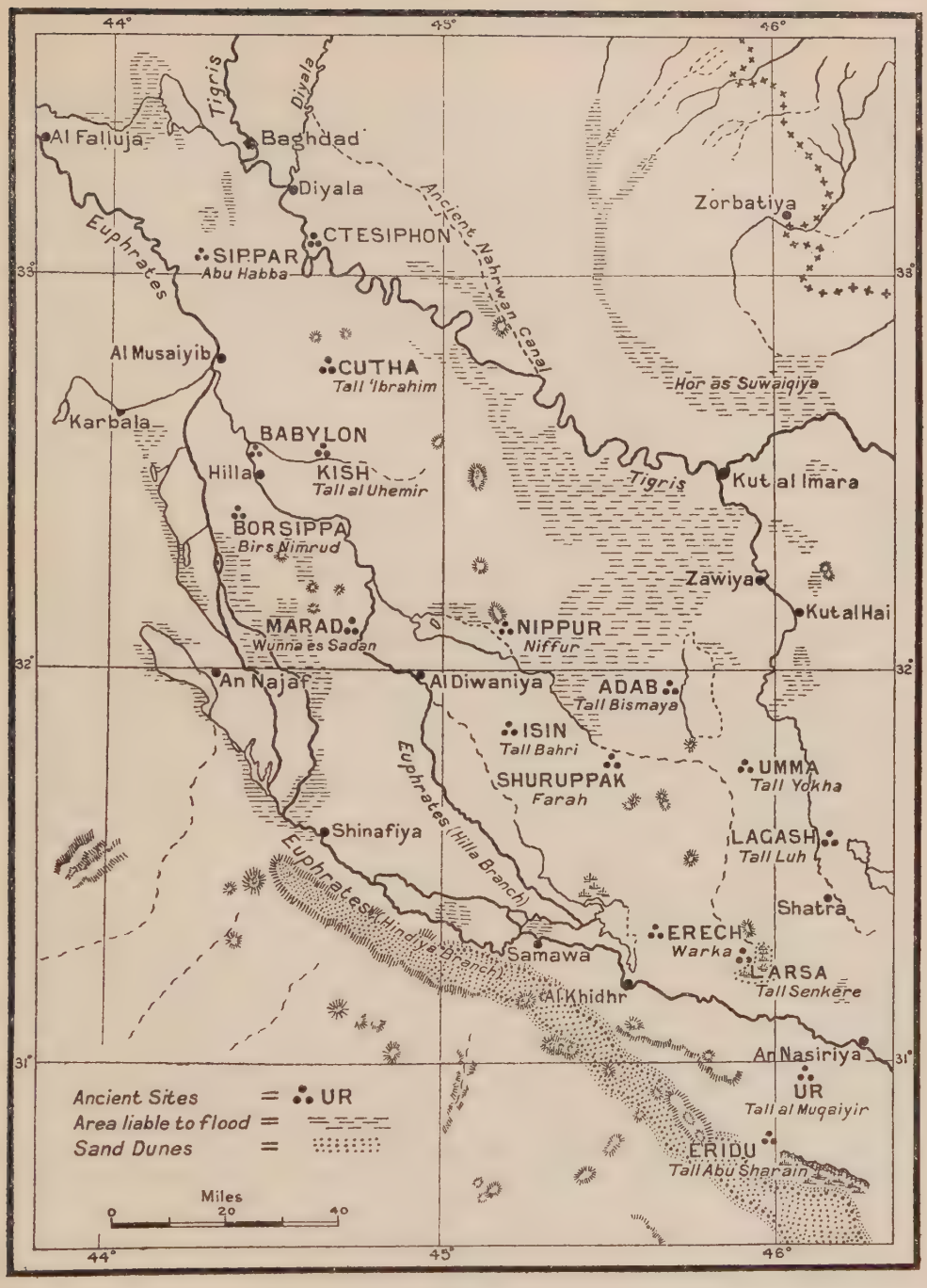
It is obvious that Mr Woolley's is one of the great archaeological discoveries. Luck, combined with skill, has in his case produced important results. When I first began work at Ur in 1919, I did not dream of the possibility of such discoveries *à la* Schliemann. For the two comparisons which at once spring to the lips are firstly Schliemann's finds at Mycenae, and secondly Petrie's at the first dynasty tombs at Egyptian Abydos. The graves and their richness in gold remind us of Mycenae, while the general *facies* of the remains is strongly reminiscent of those at Umm al-Qa'ab, the place of the tombs or cenotaphs of the oldest kings of Egypt at Abydos. And, as Mr Woolley points out, this comparison is the more pertinent because the two finds, in Egypt and Babylonia, are more or less of the same date. And they also both belong to the same stage in the development of the civilization of their respective countries. Comparison between the two is therefore very interesting, and is important in view of the debatable question whether the Egyptian or the Sumerian is the older culture. Ur in the near future may throw some light on this question.

We note at once not merely analogies such as are probable enough between two cultures in the same stage of development, and prove nothing, but actual resemblances in detail such as the extraordinarily

close resemblance of the cylindrical alabaster vases from Ur to those of the first Egyptian dynasty from Abydos. The analogous use of boats in the funeral goods I would not press, as in both countries the boat was in continual use and would easily be modelled for funerary purposes : boats are equally characteristic of both countries and there is no resemblance between the two types of boats, the Babylonian being of the high-prowed and high-sterned *bellam* type still characteristic of the Two Rivers, the Egyptian of the usual Nilotic type. But the striking similarity of the alabaster vases in both lands takes its place alongside three other pieces of evidence that have often been quoted as proofs of early connexion between Egypt and Sumer : the pear-shaped stone maceheads, the cylinder-seal, and the crenellated or panelled brick wall. Oddly, this macehead does not occur among these finds at Ur. It has been noted that most of the things in which archaic Egyptian culture so definitely resembles the Sumerian are things that are at home and are permanent in Babylonia but in Egypt are not precisely ephemeral but at any rate impermanent. They were not at home in Egypt and they died out there comparatively early. This is so in the cases of the panelled wall, the cylinder-seal, the macehead (though its hieroglyphed shape continued in the writing), and, to quote another instance, the treatment of the head of the lion, which in first dynasty Egypt shewed the truculent visage and grinning teeth that we also see in Sumerian Babylonia, and remained always characteristic of Mesopotamian art till the end, whereas in Egypt it had been abandoned as early as the time of the Pyramid-builders for the typical Egyptian lion-face, with its closed lips and air of silent majesty, and never reappeared there till late Saïte times, when Assyro-Persian influence brought it back. This certainly looks as if these early resemblances in Egypt to Sumerian artistic traits were not coincidences, and were in fact borrowings from Babylonia by Egypt, where they were not at home, and where they soon died out. We see then that there is a probability that early Egypt borrowed from Babylonia, or from a common source which was also the origin of Babylonian art, whereas Babylonia borrowed little or nothing from Egypt. The resemblance of the processions of animals in relief on Sumerian stone vases to those on Egyptian ' polettes ' of the proto-dynastic period is striking, but we do not know whether the one style was imitated from the other or whether a common origin elsewhere is not more probable. The monkeys in early Sumerian art may be as probably of Indian as of Egyptian origin. In fact we see no specifically

Egyptian traits in Babylonian art from first to last. And this would seem to argue the chronological priority of Babylonian art.

Now when we compare the results of the Ur excavations with those at Abydos we are struck with the impression of more developed culture and art that the former give. First of all we note that according to Mr Woolley the potter's wheel was known to the Ur potter, while to the first dynasty Egyptian it was not. It had not yet reached him. The Sumerian superiority is very noticeable in the necklaces of gold, carnelian, and lapis beads, in the silver lamps, and above all in the weapons. The superiority of the Babylonian jeweller is marked at this time, in spite of the occurrence of fine combinations of gold and stones at Abydos. But that of the weapon-smith is crushing. If these two cultures were roughly contemporary, the Babylonian had developed the manufacture of metal weapons to a pitch which the Egyptian was nowhere near attaining. We have only to compare the gold and copper daggers and above all the electrum adze-axe and lancehead from Ur with first dynasty Egyptian weapons to be convinced of this superiority at once. Not only did the Egyptians at this time not produce any swords or daggers that we know of like this, or anything approaching an equality with the Sumerian axehead, but they never did produce anything so good as the hafting of the axehead. The Sumerian had just invented the socketed axehead, and we see what a beautiful weapon he had made, not only in the electrum adze-axe, but also in the silver and copper axes discovered. The Egyptians now were using copper axeheads or billheads of simple rounded form, stuck into the haft, with no notion of a socket. The Sumerian haft was very like the later Egyptian, with its slightly curved line, and this form may have been adopted later by the Egyptians, but for some reason they never adopted the socket, though they must have known of it. Even when a thousand years later they developed their own axehead into a more serviceable hatchet-shaped form, with a blade more formidable for fighting than were the two early Babylonian forms, they never took over the socket for the axe, though they early adopted the socketed spearhead, which the Babylonians had not yet invented in the early period. We do not know why the Egyptians would have none of the socketed axehead, but they always preferred their axehead thrust through the haft and bound to it by leather thongs. It may perhaps have been just as efficient as the socketed head. But mechanically it was primitive, whereas the ancient Babylonian invention, which spread everywhere else in the world, was a great step in advance. And it is the lines, the design


44°
45°
46°
Tigris
Diyala
Al Falluja
Baghdad
Diyala
Ancient Nahrwan Canal
Zorbatiya
Euphrates
CTESIPHON
SIPPAR
Abu Habba
33°
Al Musaiyib
CUTHA
Tall 'Ibrahim
Hor as Suwaiqiya
Karbala
BABYLON
Hilla
KISH
Tall al Uhemir
Tigris
Kut al Imara
BORSIPPA
Birs Nimrud
Zawiya
Kut al Hai
MARAD
Wunna es Sadan
NIPPUR
Niffur
32°
An Najaf
Al Diwaniya
ADAB
Tall Bismaya
ISIN
Tall Bahri
Euphrates
SHURUPPAK
Farah
UMMA
Tall Yokha
Shinafiya
Euphrates (Hilla Branch)
LAGASH
Tall Luh
Euphrates (Hindiya Branch)
Shatra
ERECH
Warka
Samawa
LARSA
Tall Senkere
Al Khidhr
An Nasiriya
31°
UR
Tall al Muqaiyir
Ancient Sites = UR
Area liable to flood =
Sand Dunes =
ERIDU
Tall Abu Sharain
Miles
0
20
40
44°
45°
46°

of the Sumerian weapons, that strike us as so greatly superior to that of the supposedly contemporary Egyptian weapons.

Leaving weapons again we see in the spouted jug a Sumerian superiority over Egypt. The Sumerian must have invented the spout, which we also see commonly in their pottery at this time, but which is absent normally from Egyptian vase-making in metal or pottery until the Pyramid-period, although foreign imported vases (from Syria) with a spout are found in late predynastic Egyptian graves.

I have not space in which to elaborate this theme of the greater superiority of the Sumerian culture over the Egyptian contemporary civilization, if they were contemporaries. It is largely a matter of the general impression that study of the two cultures gives. And if the Sumerian was the superior, and they were contemporary, the conclusion inevitably forms itself that the Sumerian was the older of the two, the senior culture, from which the junior borrowed, whereas the senior borrowed nothing from the junior.

The impression of general contemporaneity is definite. Both cultures shew a general resemblance in their works of art, they are obviously roughly at the same stage of development, they use the same materials and arrive more or less at the same results. And any observer would say that they ought to be more or less contemporary, that they look as if they were the parallel result of nascent civilizations such as would be expected in two peoples developing in more or less the same region of the world at more or less the same time. And this apart from any question of actual borrowings.

How far can we ascertain their respective dates? The date of *c.* 3100–2900 B.C. (earliest possible 3200) for the first dynasty of Ur is that now generally accepted as the result of the critical work on the subject of Babylonian chronology carried out by a number of scholars reinforced by the astronomical researches of Prof. Fotheringham.[8] This takes us back to roughly about 2700 B.C. for the great king of Erech Lugalzaggisi, the predecessor of the famous kings Sargon, Urumuš, Maništusu, Narām-Sin, and Sargani-šarri of the dynasty of Akkad, the date of which falls between 2700 and 2500. This puts the earlier *patesis* of Lagash from Urukagina (contemporary of Lugalzaggisi) back to Urninā between 2900 and 2700, with the result that Lugal-shag-engur of Lagash and Mesilim of Kish go back to about 3000, and before them

[8] Summed up in Prof. Eduard Meyer's recent book *Die ältere Chronologie Babyloniens, Assyriens, und Ägyptens* (1928).

comes the first dynasty of Ur. So far as Egypt is concerned Prof. Meyer revises his previous conclusions in the light of new evidence, and reduces the date of Menes and the beginning of the first dynasty from about 3400–3315 to 3197 (roughly 3200) B.C. The third dynasty will then have begun about 2778 B.C., the sixth about 2424 ; and the end of the eighth, at the close of the 955 years which is stated in the Turin Papyrus to have been the sum of the kings of the Old Kingdom, is placed about 2242, leaving 242 years till the beginning of the twelfth dynasty about 2000 B.C., on the authority of the well-known Sothic date for that dynasty. This date is now generally accepted. I have myself suggested that owing to the extremely short period it allows between the end of the twelfth and the beginning of the eighteenth dynasty (*c.* 1788–1580 B.C.), there may have been a mistake of some kind as to this Sothic date: the calculations of Nicklin[9] would take it back about 70 years, and if such a discrepancy in the calculations of the astronomers is possible, it is not incredible that the twelfth dynasty may have to be put back even further, but not more than 200 years earlier.[10] I fully accept Prof. Meyer's revised conclusions as to the dates of the Old Kingdom, so that the earliest possible date for Menes may be taken as not 3600 but 3400 B.C., and the latest as 3200. The calculations of Borchardt based on consideration of the Palermo Stone which would take Menes back a thousand years, have been proved erroneous by Peet and Meyer, and Prof. Sir Flinders Petrie's proposal to take back the twelfth dynasty a whole Sothic period (1460 years) earlier, and so bring Menes to about 5000 B.C., is generally regarded as impossible of acceptance. For one thing, it would make nonsense of Cretan archaeology, as well as totally disagreeing with the Babylonian evidence. We cannot settle Egyptian chronology on Egyptian evidence alone ; the three archaeologies are so interwoven now that their chronologies have to be considered together, and the two others unite in throwing out Petrie's Egyptian dates. We may then take the date of the first dynasty as about 3400–3200, or equally possibly, if the Sothic date is incontrovertible, about 3200–3000 B.C. That is to say, if Meyer's date is accepted, the first Egyptian dynasty and the first dynasty of Ur were roughly contemporary, and if Mr Woolley's contention is correct—that Ur A goes back to 3500—the oldest and richest graves of Ur, which have yielded such wonderful results, are, if Meyer is

[9] T. Nicklin, *The Origin of the Egyptian Year* (*Classical Review*), 1900, pp. 146–8.

[10] H. R. Hall, *Ancient History of the Near East*, p. 25; *Cambr. Anc. Hist.* i, p. 169.

right, older than, or if my suggestion has anything in it, contemporary with the first Egyptian dynasty.

We have seen that Ur A, with its superior ceramic and metallurgical technique, seems to shew us a culture more highly developed than that of the first Egyptian dynasty, though closely analogous to it. If this impression is justified by the facts, its development must go back further than that of the contemporary Egyptian culture, and it must be the older of the two. Also the fact that the Egyptians of the first dynasty seem to have borrowed certain elements of culture from Babylonia, which afterwards died out in Egypt, goes to confirm the greater age of the imitated culture. The possibility that these elements came to Egypt not direct from Babylonia but from an unknown common source from which Babylonia also took them must not be ignored. So far as the facts go, however, we seem to be confronted by the new Babylonian discoveries with the conclusion that of the two the Sumerian was slightly the older culture, and that Egypt borrowed from it not only the element which we have already noted, but, after the time of the first dynasty, the knowledge of the potter's wheel and the socketing of weapons, which she adopted for the spear but not for the axe.

The bearing of this conclusion on current theories that Egypt was the centre from which all civilization spread over the Orient and the world, is obvious. Our deduction cannot yet be pressed : we need further evidence which we hope will shortly be forthcoming. But that is how the matter stands at the moment of writing (December 1927).

# Roman Malton: a Yorkshire Fortress and its neighbourhood*

by Philip Corder and John L. Kirk

EXCEPT for some trenches dug in 1865–6, when the Thirsk and Malton railway was constructed, no systematic excavation of the Roman station at Malton has ever been made until 1927. Although casual Roman finds have been plentiful, few of them have been published and little is definitely known about the site and its history, the current Ordnance Survey map merely marking the Fortress as 'Supposed Roman Camp'. Many of the statements made about it in the past have been purely conjectural. As a result of recent investigations, the writers believe that the time has come when some general statement can profitably be made as to the extent of the site, its importance in Roman times, and the nature of the occupation of the neighbourhood.

Amongst those who have written of the antiquities of Malton in the past, one writer, Rev Dr Young (*History of Whitby*, 1817) shows unusual judgment and penetration in an age when antiquaries were only too ready to repeat the guesses of their predecessors. The exact position and extent of the Malton fort were unknown before 1927, and few finds are recorded before the 19th century, yet Dr Young recognized it as a place of importance and guessed its position correctly. With only a knowledge of the inscribed stone at Ravenhill[1], more than a century

* The writers wish to record their indebtedness to the Editor of the *Malton Messenger* for his courtesy in putting the files of his paper at their disposal; and to the Director-General of the Ordnance Survey for references to the Name Book of the Ordnance Survey.

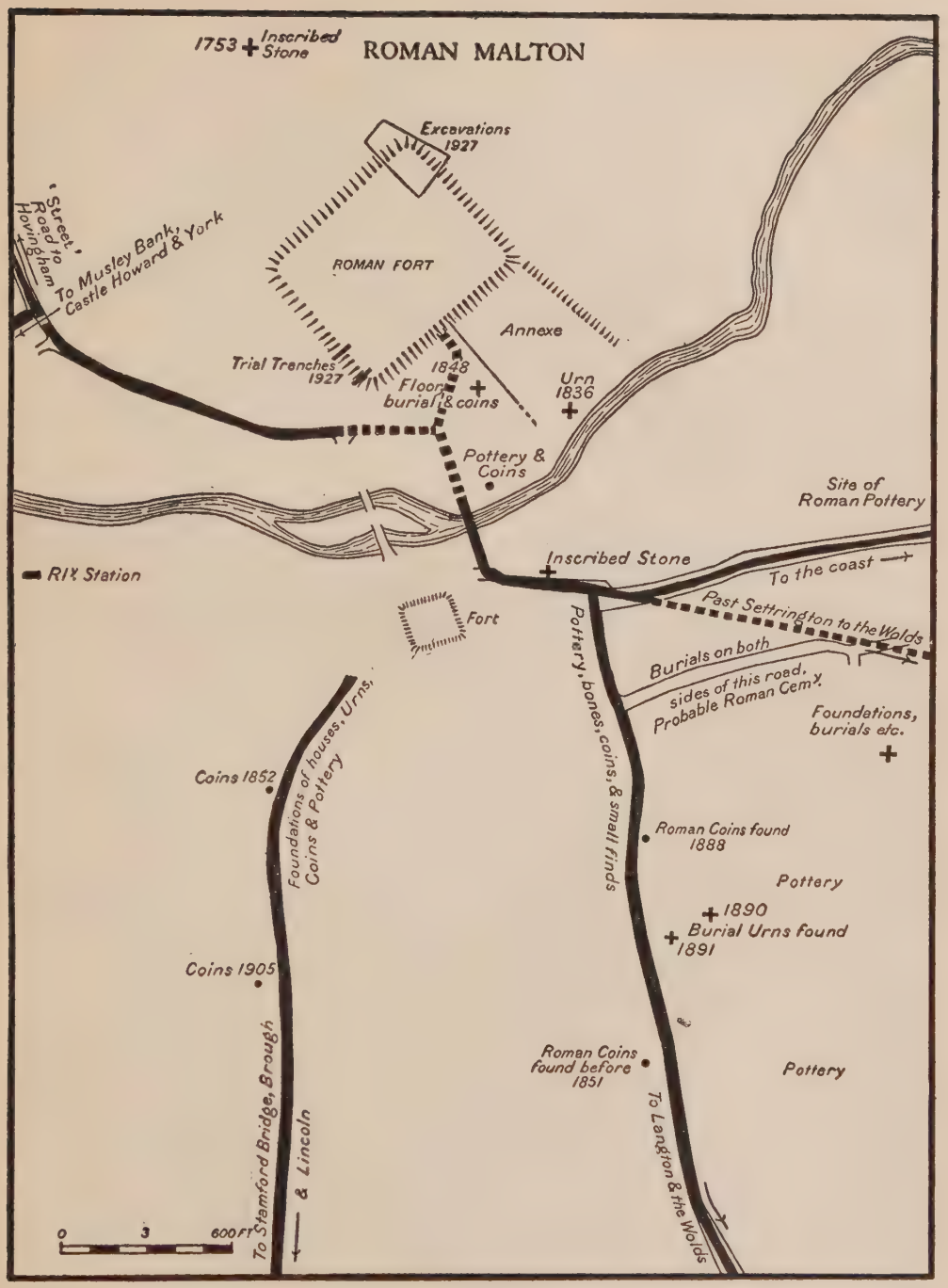
The following abbreviations are used in the footnotes :—

ONB *for* Ordnance Survey Name Book.
JRS „ Journal of Roman Studies.
YRAC „ Yorkshire Roman Antiquities Committee.
CIL „ Corpus Inscriptionum Latinarum (Hübner), 1873.
YAJ „ Yorkshire Archaeological Journal.

[1] CIL, vii, 268 : JRS, ii, pt. 2, p. 210.

before the discovery of the signal stations at Huntcliff, Goldsborough, and Scarborough, and forty years before the Roman finds were made at Filey, he wrote : ' Malton was a most suitable place for a large garrison and military depot for supplying and assisting the forts along the coast, having ready communication with Flamborough, Filey, Scarborough, Ravenhill, Whitby, Dunsley, etc., as well as with York, the metropolis of Maxima '. Reference will later be made to his suggestion, in discussing the first Antonine Iter, that Malton is Derventio and that this route runs north-eastward from Eboracum and terminates at Dunsley Bay.

The Roman fortress at Malton is situated midway between York and the coast on a tongue of land at the north-east termination of the Howardian hills, sloping down into the marshes of the vale of Pickering and having the river Derwent on the south. It was here that the Norman castle was built, which in its turn gave place to a Jacobean mansion, no traces of which remain but the gatehouse, which in its altered form is known as the Lodge. The gardens of the Lodge cover about half the Roman fortress and the levelling of the castle and mansion and the work of subsequent landscape gardeners has obliterated all surface indication of buildings and defences. The north-eastern half of the fort is under pasture land known as the Orchard Field and has for its boundaries the Derwent on the south-east, the modern Malton-Pickering road on the north-west, and the Thirsk railway, which, as the ground falls to the river, emerges from a deep cutting that has destroyed the outer ditch, on to an embankment leading to a bridge over the river. The north-west rampart is about 60 feet above the river, but the ground drops away steadily to the south-east rampart and the annexe which lay between it and the Derwent. The field was levelled in 1800 and the following years, so that the line of the rampart parallel to the road has been obliterated, and only the general direction of the north-eastern and south-eastern defences were discernible when excavation was begun in the north corner in the spring of 1927. Owing to the levelling just mentioned, the surface earth was found to be full of potsherds of all periods and the whole site gives evidence of systematic quarrying, possibly in the Norman period, as hardly a stone of the wall was found in position. The defences inclose an area of not less that eight acres and consisted originally of a clay rampart (plate III) with at least two ditches and possibly more which have been obliterated by the later and deeper ditches. At a later period on the north-east side of the fort, this


ROMAN MALTON
1753 Inscribed Stone
Excavations 1927
ROMAN FORT
Annexe
'Street' Road to Horingham
To Musley Bank, Castle Howard & York
Trial Trenches 1927
1848 Floor & burial & coins
Urn 1836
Pottery & Coins
Site of Roman Pottery
R.I.% Station
Inscribed Stone
To the coast
Past Settrington to the Wolds
Fort
Burials on both sides of this road, Probable Roman Cem.y
Foundations, burials etc.
Pottery, bones, coins, & small finds
Foundations of houses, Urns, Coins & Pottery
Coins 1852
Roman Coins found 1888
Pottery
1890 Burial Urns found 1891
Coins 1905
Roman Coins found before 1851
Pottery
To Stamford Bridge, Brough & Lincoln
To Langton & the Wolds
0 3 600 FT

rampart was cut away and faced with a stone wall four to five feet thick. On the north-west front, however, this wall swings out beyond the earlier defences; one of the ditches has been filled in to carry its footings. These consist of stone set in clay to a width of twelve feet. On this side of the fort, where the railway cutting has not destroyed the outer ditches, are two deep v-shaped ditches, cut into the rock, ten feet and fifteen feet in depth. The wall has been a fine structure built of large dressed stone. Intra-vallum roads show evidence of six or seven reconstructions. Excavation inside the corner of the fort suggests at least four reconstructions of the internal structures, starting with buildings of wattle and daub on an earth floor. The next period shows foundations of fine stone buildings which have subsequently been entirely removed and their foundations covered by the later cement floors, and these in their turn have later structures overlying them but unconnected with them (plate II). A circular oven was found backed by the clay rampart at the north corner and the distinct layers of burnt material in connexion with it suggest that, when completely excavated, it will show several reconstructions. An apsidal building of the latest period encroaches on the clay rampart of the north-east defences so that its eastern wall is only ten feet from the outer face of the fortress wall.

Finds of pottery have been plentiful and cover all periods from the first to the fourth century. The most interesting of the latter is part of a vessel decorated with hammer and tongs, a parallel to the famous smith's vase at Colchester, hitherto considered unique. Mr M. R. Hull, who has examined the pottery, reports as follows: 'The pottery found in the fort at Malton ranges from late Flavian times to the late 4th century. The quantity is very large, but the proportion assignable to the period before 300 A.D. is comparatively small, especially in the third century. There is hope that several strata, which all seem to belong to the 4th century, may yield material for the ceramic history of the period'. Up to date 76 coins have been found during the excavations and the writers have in addition an authentic list of 293 more found on or about the site. These extend from Nero to Valentinian I and according to Mr Harold Mattingley and Mr T. W. E. Pearce, of the British Museum, who have kindly examined them, are well distributed over the period of the Roman occupation, with possibly a short gap in the third century. Except for a very small fragment, no inscribed stone has so far been found, but in 1753, in the Pye Pits a short distance north of the fortress, was found the memorial stone of

Aurelius Macrinus, ex-member of the Emperor's bodyguard at Rome,[2] presumably a discharged veteran.

Evidences of a Roman civil settlement south of the Derwent on the site of the modern Norton are extensive and conclusive. Drainage operations begun in November 1862, and carried on in subsequent years, revealed the Roman ford opposite the south-east gate of the fortress, several roads branching from it, foundations of buildings, many burials and innumerable small finds. It is difficult to understand why no proper account of such important discoveries was ever published. In making the drainage outfall at a point opposite the modern gasworks at a depth of eight feet, the workmen found a hard concrete mass resembling the best macadamized road. This proved to be a road fifteen feet wide continuing across the river. On it were found coins varying in date from Constantine to William III, at least suggesting that the ford was in use until comparatively modern times. In addition to bones and Roman pottery, were found an iron spear head, a horn handle, a wooden sandal with bronze fastenings, and a quantity of small horse shoes smaller than modern ones and without the groove for the nail head. The road was exposed for some yards towards a small rectangular camp 100 feet square, presumably a Roman post guarding the ford, which is now covered by the houses on the north side of the modern St. Nicholas Street.[3]

On reaching the modern road the Roman road was traced eastwards in the direction of Scarborough for some 220 yards and was again found further east opposite the old manor house, this time only three feet below the modern surface and composed of broken stone laid in cement on a foundation of boulders. The most interesting discovery made on this side of the river was that of an inscribed stone, apparently from the front of a goldsmith's shop, found in the old church wall 100 yards east of the ford.[4] Reference is also made by a Mr Monkman in the middle of the last century to his discovery of a Roman pottery on the site of the Primitive Methodist chapel a little further along the road. Just beyond the church, where the modern Wold Road leaves the Scarborough road, was found another Roman road of similar construction running southwards at right angles to the first. Numerous burials were found on

[2] CIL, vii, 264.
[3] Map of British and Roman remains, Arch. Inst., 1847.
[4] CIL, vii, 265 ; Handbook of York Museum, pp. 33–4.

each side of this road in the cellars of the houses and eastwards along Wood street; and Roman pottery is frequently turned up in digging graves in the modern cemetery which lies some way to the east of this road. Another road led south-west from the ford skirting the small fort just mentioned, and was traced as far as St. Nicholas street, which cuts it at right angles. It presumably joined the south road to Stamford Bridge, a coin find having been made in laying the foundations of a house on this line. During similar drainage operations the road was found again on the north side of the ford. It skirted the south corner of the fortress and was found in several places along the line of the modern road through Malton leading to the Street villages and Hovingham. In Castlegate it was a paved road of large blocks of stone set in cement nine to twelve inches thick and between three and four feet below the present surface, the centre, forming a channel, being lower than the sides. A similar road was found, branching off from this in the direction of York along the line of Yorkersgate.

The fortress at Malton is comparable to the legionary fortress of Eboracum itself as a road centre, no fewer than six Roman roads appearing to meet here. The westerly road, still known as the Street, through the villages of Appleton-le-Street[4] and Barton-le-Street,[5] keeps almost a straight course to Hovingham, where a considerable villa was found in 1745 with 4th century coins.[7] At East Ness in the same parish a stone sarcophagus, inscribed by Vindicianus to his wife and two sons, was discovered in 1616.[8] This name is of uncommon occurrence and may well be that of the officer who built the signal station at the Peak in the 4th century.[9] After Hovingham the road enters hilly wooded country and its course becomes conjectural; but that it led to Aldborough (Isurium) seems probable. Beside this road at the village of Broughton, on the outskirts of Malton, was a Roman cemetery, where numerous burial urns[10] have been found at various

[5] Roman pottery 1889 in churchyard S of road (ONB).

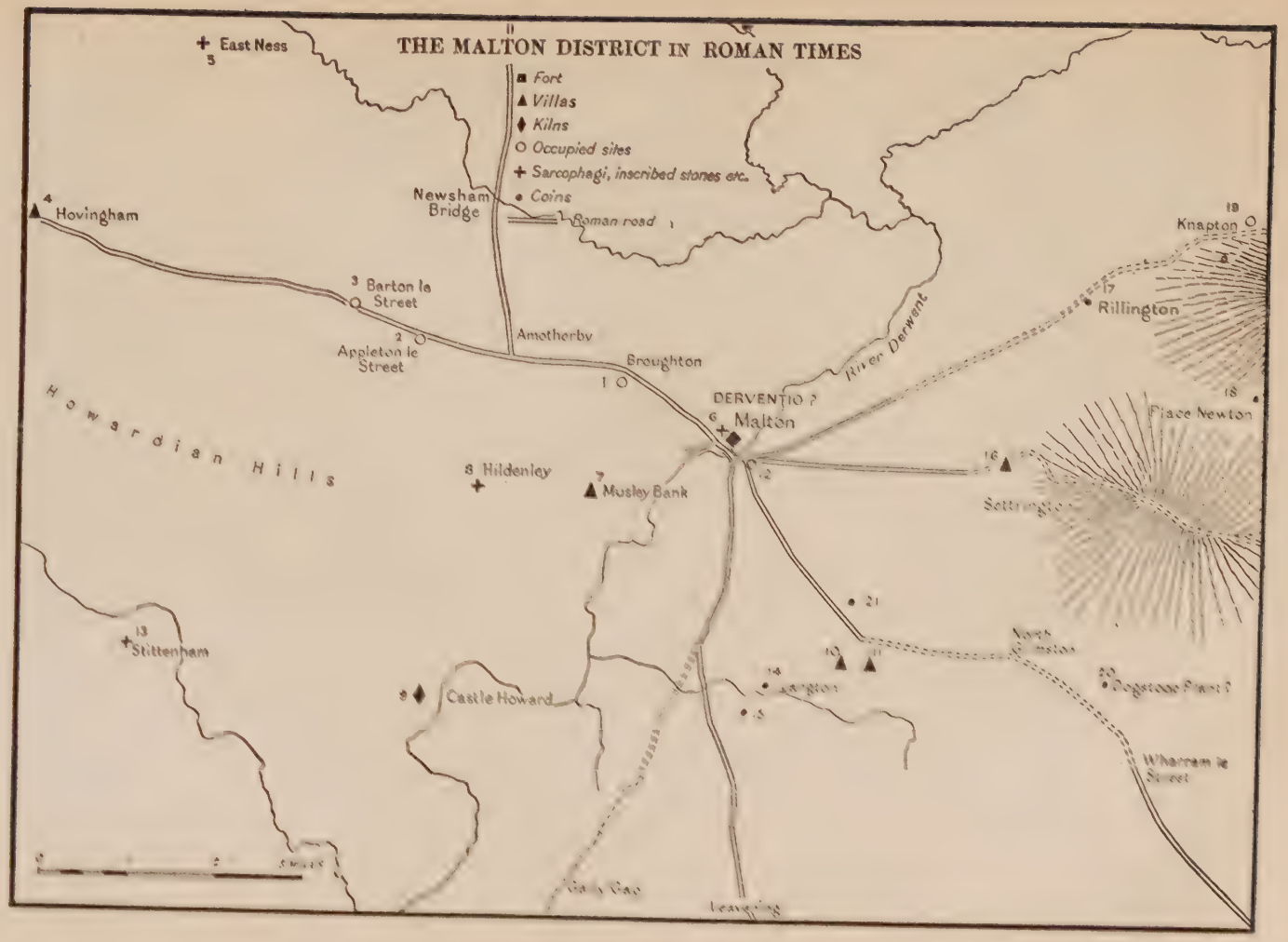
[6] Roman pottery 1888 in garden N of road (ONB).

[7] Tesselated pavement; hypocaust; bath 11' by 10' 9"; coins Ant. Pius, M. Aurelius, Constantius and Constantine

[8] CIL., vii, 266.

[9] CIL., vii, 268; JRS, ii, pt. 2, p. 210.

[10] 9 burial urns S of road previous to 1840 (ONB). 11 urns previous to 1798 (Hinderwell, *History of Scarborough* 1798, p. 15).


THE MALTON DISTRICT IN ROMAN TIMES
Fort
Villas
Kilns
Occupied sites
Sarcophagi, inscribed stones etc.
Coins
Roman road
East Ness
Hovingham
Newsham Bridge
Barton le Street
Appleton le Street
Amotherby
Broughton
River Derwent
Knapton
Rillington
Howardian Hills
DERVENTIO ?
Malton
Hildenley
Musley Bank
Place Newton
Stittenham
Castle Howard
Wharram le Street

periods, containing jewellery, bronze bridle bits, etc. The main south road, probably the chief line of communication with Eboracum, ran from the ford at Norton, keeping to the east[11] of the winding valley of the Derwent, as far as Stamford Bridge, just east of which it joins the Garrowby street road from York to Flamborough (probably the Ocellum Promontorium of Ptolemy), which crosses the Derwent at this point. Two and a half miles from Malton a branch of this road is marked on the Ordnance survey maps[12] leading eastwards on to the wolds at Leavening to a height of nearly 800 feet and making for the Flamborough road near Wilton Beacon. That a loop road joined this south road to the Street is possible though not certain.[13] Certainly a Roman road ran north from the Street near Amotherby crossing the Rye at Newsham Bridge, near which place Drake records a milestone.[14] From here it crossed the low-lying vale of Pickering on a series of holms past Riseborough, where Roman pottery has been found, and reached the Cawthorn Camps. North of here several miles of its course have been exposed by the Office of Works. Its destination appears to be Dunsley Bay (*Dunum Sinus* ?) at a point near Sandsend. South-east from the ford at Norton ran a road to North Grimston and Wharram-le-Street past Fimber station,[15] just south of which it joined the York-Flamborough road mentioned above. A road connecting Malton fortress with the coast at Filey and Scarborough most probably led eastwards, approximately on the line of the present road at the foot of the wolds, as Roman finds have been made at several places along its course.[16] At Knapton, north of the present road, several burial urns were found previous to 1832, one of which, complete with lid, 19 inches high, is in the Scarborough museum. We have found numerous 4th century potsherds at this spot, and other indications of a considerable occupation along the line of the road. Thirteen miles from Malton at Sherburn, where the road most probably branched off to Scarborough from the Filey

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[11] Coins from house foundations W of road.

[12] 6″ O.S. map, CXLII, NW ; CXLII, SW.

[13] Warburton's map (1720) referred to by Codrington, *Roman Roads in Britain* (1919).

[14] Drake, *Eboracum* Bk. i, p. 36.

[15] Romano-British cemetery, 20 bodies, pottery, etc. (Mortimer Museum catalogue, 1900).

[16] Knapton; pottery and coins previous to 1846 (ONB). Place Newton; (S of the road) coins and pottery 1889; (ONB). Rillington; a Roman bead. Sherburn; Coins of Severus Alex. and Diocletian (YRAC, *Bulletin* 4, 1927); pottery (1928).

road, Roman coins have been found and one of the writers has collected pottery over a considerable area. A trench dug here in February produced 4th century potsherds and an occupation level at a depth of two feet.

The country north of the fortress lying between this coast road and the Street must have been too marshy to be traversable in Roman times, as no traces of a road in the Pickering direction have been found. Traces of a road from Norton to Settrington and so to the high wolds are marked on the 6-inch Survey,[17] and have been observed by the writers, though its track follows the line of no modern road and ploughing has removed almost all surface indications of its course. In January last the writers traced this road to the foot of the Wolds, north of Settrington village, where, in a ploughed field, they found fragments of 4th century pottery. A trench dug here in February revealed, at the depth of a little over a foot, a floor of rammed chalk covered with a black layer of burnt material and crossed by two wall footings. Above and on this floor were many potsherds of the 4th century and a coin of Constantinus II. A similar floor was uncovered about 50 yards from this, and other trial pits in the same area showed the occupation level and produced similar sherds, which indicates that the settlement was an extensive one. The probable line of the road was traced from here, swinging up the steep escarpment on to a line past Settrington Beacon. A lesser road, well marked by finds,[18] led from Norton to Langton, where two Roman villas have been discovered. The first of these, found in 1863[19] on the middle farm, had a tesselated pavement of chalk, bluish wold shale and brick. The second, on the east farm, was re-discovered in March 1926 by Rev C. V. Collier, F.S.A. The illustration (plate v) shews a small rectangular chamber 7 feet by 5 feet, to the west of which is a larger room with the pillars of the hypocaust five in a row. Here were portions of the pavement still in position, the tesserae being similar to those found on the middle farm in 1863. Fragments of wallplaster shewed a floral design in red, brown, blue and pale yellow. The two coins found were of the 4th century, as was most of the pottery from the site.[20]

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[17] *Gentleman's Magazine*, 1862, ii, 557. See also *Gentleman's Magazine Library* : Romano-British remains (1887) pt. ii, 369–70.

[18] Sepulchral urns near St. Peter's Church 1890–1891, and coins previous to 1851 all close to the road (ONB).

[19] *Malton Gazette*, 3 January 1863.

[20] YRAC *Bulletin*, nos. 1 (1926) and 4 (1927).

Whether a road led direct from Malton to Eboracum on the west of the Derwent cannot be proved. As has been mentioned, a Roman road left the fortress along the line of Yorkersgate and a tessellated pavement, marking presumably a villa site, has been found on this line at Musley Bank,[21] about a mile and a half from Malton near a point where the modern road makes a right angle bend. The Castle Howard pottery, to be described shortly, lies within a hundred yards of the present main road, and as pottery made here in great quantity in the 4th century has been found at Malton and Eboracum, a direct line of communication seems highly probable.

The most interesting Roman site at present being excavated in the neighbourhood of Malton fort is that of a pottery near the Cram Beck on the Castle Howard estate. This site lies close to the Derwent, five miles SW of Malton on high ground above Castle Howard station, close to an earthwork classed as Roman in the *Victoria County History*. Good clay is abundant here in the Cram Beck, near where it runs into the Derwent. The site seems first to have been recognized as a pottery in the middle of the last century, when traces of kilns were found about three hundred yards from the spot where kilns were located last summer.[22] The site was, however, almost completely forgotten and was re-discovered by a boy from Bootham school, York, in 1923. In the earth at the top of the quarry which cuts into the crest of the rising ground about a quarter of a mile from the Cram Beck, he found many fragments of coarse Roman pottery. The site is being systematically explored by one of the writers and some of the older boys from Bootham school. Abundant evidence of the manufacture of pottery is found all over the part of the field adjoining the quarry. Besides hearths and the rough footings of the walls of a shed (in association with one of which was found a little 2nd century Samian ware and a bronze finger ring), four kilns and two burials have been excavated.

The kilns were worked in pairs, stoked from the same stokehole, a roughly circular pit about five feet across, dug below Roman ground level. From this led to each kiln a flue passage, built of undressed slabs of stone set in clay in place of mortar and usually floored with stone. This flue was roofed with slabs of the same material, some of which, in two of the kilns, were found still in position. The

[21] 1817–1842, ONB.

[22] ONB and Sheahan, *York and the North Riding* (1859) ii, 592.

flues, which were three to four feet in length, led into circular furnaces, in each case clay floored and clay lined. They were evidently circular pits sunk below Roman ground level and plastered with soft clay to a thickness of three or four inches, the first firing converting them into permanent structures. In the best preserved pair of kilns the flue passage, once roofed, has been covered with occupation earth, containing broken sherds and a roughly paved area constructed over it and around the furnace. At this level, about two feet six inches above the furnace floor, a permanent clay platform was built over the furnace perforated with vent holes to admit the passage of the heat. On this was constructed the temporary oven in which the pots were fired. This was rebuilt for each firing of the kiln, and it must have been so constructed as to allow the smoke and flue gases from the furnace to pass through it, for no separate chimney or exhaust passage was built in these kilns as was found in those recently excavated by Mr Heywood Summer in the New Forest. Cutting obliquely across the furnace wall of the first kiln discovered, was found a roughly constructed burial cist about six feet in length, composed of slabs of local limestone and floored with the same material. (Plate IV). The leg bones of the burial and a few small fragments of other bones were in situ, and part of the calvarium was found in the débris filling the adjoining furnace. By the left hip was found a small globular pot, rim diameter $2\frac{3}{8}$ inches, of grey ware and local technique. Less than three feet from the head of this cist was another, more massively constructed of six limestone slabs, with a large slab covering the lower part of it. In this was found the major part of the skeleton. By the left hip lay the base of a large 'vesicular' cooking pot, and by the right temple a small, and we think unique, tumbler-shaped vessel three inches high, ornamented with groovings round the body and concentric circles on the base. It is of well burnished blue-grey ware, similar in material, but not in form, to much of the pottery found on the site. The cists lie 18° and 28.5°E of N respectively. There is little evidence by which these can be dated. They were certainly subsequent to the abandonment of the kilns but a long period need not have elapsed before such structures would be forgotten and covered by the light sandy soil. It seems reasonable to suppose that they are late Romano-British. It may here be noted that two similar burials, together with Roman coins, were found in 1858 near the Cram Beck. The coarse pottery found in very great quantities in the rubbish dumps that lay near these kilns, and indeed all over the site, suggests that they were working from the end

of the third century until the second half of the fourth. The ware is mostly hard grey or black, often well burnished, but painted platters and mortaria were also made here, as was the calcite-gritted or ' vesicular ' ware. Pottery from Castle Howard is found at Malton and the Langton Villa, and it is highly probable that much of the better ware found at the Scarborough signal station was also manufactured here. This flourishing industry of the fourth century lends support to our belief that Malton was an important Roman centre at that period.

A word may here be said about the name of Roman Malton, though this must remain a matter of conjecture until definite proof appears. Early antiquaries were inclined to Camalodunum, on the grounds that Ptolemy mentions a Camalodunum in Brigantian territory in addition to the colonia in Trinobantian territory (Colchester). The first Antonine Iter gives distances between stations from the Wall through Eboracum to Praetorium, the site of which station has never definitely been determined. After Eboracum this Iter gives the distances to Derventio VII miles, thence to Delgovicia XIII miles, and from there to Praetorium XXV miles. After discussing various attempts to trace this route to Brough on Humber, Beverley and Patrington, Dr Young (*History of Whitby*, p. 719) writes as follows :—' Since, then, every line proposed for this Iter is attended with difficulties, why may not we bend it a little further northward, and make it terminate at Dunsley ? We have here an undoubted Roman road, proceeding in a direct line from York towards an important part of the coast, in a line on which the Romans had encampments so early as the time of Agricola; a road, not of the slight vicinary kind, but strong and spacious, furnished with bridges both of wood and of stone ; and provided not only with good stations at Malton, at Cawthorn, and at Dunsley, where it ends, but with intermediate posts at Barugh and Lease Riggs. Nor are the difficulties in fixing the stations on this line greater than in the lines already noticed. If we read XVII for VII, as the number of miles from York to Derventio, supposing an X to be omitted, it will bring us to New Malton, which is exactly at this distance from the suburbs of York. Now Malton is situated on the Derwent, as well as Stamford Bridge, and it has a far better claim to be Derventio, being an undoubted Roman station of great importance, placed at the intersection of several roads ; for here the York and Whitby roads, the Flamborough road and the western road proceeding by Hovingham, have all met ; and perhaps others now defaced or undiscovered. Here have been found vast

quantities of Roman coins of various Emperors, some as old as Trajan and Hadrian but a greater number of the lower Empire.'

The earthwork at Barugh, although on the line of the road, appears to be of the medieval rather than of the Roman type. Certainly there was a Roman post of some description at Riseborough, marked by pottery finds in the cutting made by the Pickering-Sinnington railway. Since Dr Young wrote this, no evidence for a Roman station of any kind has appeared at Stamford Bridge, though the Eboracum-Flamborough road certainly crosses the Derwent at this point. In support of this unusual northward turn in the route, it must be noted that the country lying east of the Great North road is wild high moorland unmarked by Roman occupation and that there can have been no direct communication from Cataractonum, Isurium or Eboracum to the north-east coast of Yorkshire save by way of Malton. There are difficulties in placing Delgovicia at Cawthorn, as recent excavations have shown no trace of a permanent occupation of that site. The unfinished camp D,[23] however, at Cawthorn was clearly intended for a permanent station. The *Notitia* gives particulars of the garrison at Derventio (*praefectus numeri Supervenientium Petuariensium Deventione*). We now know that Malton was strongly held in the later years of the Roman occupation, and Stamford Bridge, did such a fort exist, is too near Eboracum to be usefully garrisoned in the 4th century. Though the name of our Roman fortress must, therefore, remain undecided, the writers are of the opinion that Malton has better claim to be Derventio than any site suggested for it up to the present time.

Enough has now been said to bear out Dr Young's conclusions as to the importance of Malton as a military centre. It has been seen that we have here a large fort of eight acres with unusually imposing defences and an annexe. Moreover around it there is a considerable civil settlement, as evidenced by the goldsmith's shop in Norton and streets and foundations of buildings to the south of the river over the ford. In addition, the immediate neighbourhood of the fortress was sufficiently peaceful for settlements to be built several miles from its protection; the sites of nine of these are known, seven at least of them occupied in the 4th century. Moreover in the neighbourhood a flourishing pottery factory was at work at the same period. The fortress itself, an important road centre as we have seen, was in full occupation

[23] YAJ, part 113 (1927).

at the period of the signal stations along the coast and was in direct communication by road with Flamborough and Filey, Scarborough and Goldsborough. The excavations conducted at York this year by Mr S. N. Miller have shown that at the same period certain of the stone barracks adjoining the defences there were disused, and 4th century pottery within the York defences is scarce. All communication between Eboracum and the signal stations north of Filey must have been by way of Malton ; and as Eboracum is too far from the coast for reinforcements to be quickly moved to any threatened point, it must be concluded that Malton—or may we say Derventio ?—was the base from which these signal stations were operated.

# Notes and News

## ARCHAEOLOGICAL DISCOVERIES IN INDIA

In *The Times* of 4–5 January and *Illustrated London News*, 7 January, Sir John Marshall gave an interesting summary of the last few seasons' work at Mohenjo-Daro and Harappa and the following notes are based upon those articles.

At Mohenjo-Daro in the Indus valley the three latest cities on the site have so far been excavated and these appear to be roughly contemporary with the uppermost cities at Harappa in the Punjab. On this second site, however, the excavations have been carried to a greater depth, and remains of a much earlier type have been recovered. The date of the uppermost cities of Mohenjo-Daro and Harappa can be determined within fairly narrow limits by the discovery in Mesopotamia of typical Indian seals, inscribed with Indian pictographic signs, in positions which leave no doubt that they belonged to the period before Sargon I, that is before about 2700 B.C. Another seal of the same pattern, recently discovered at Ur, is inscribed with cuneiform characters of about 2700 B.C. These seals, therefore, evidently belong to the first half of the 3rd millennium B.C., and since others of the same type are found associated with the three uppermost cities at Mohenjo-Daro it is reasonable to assume that they flourished at or before that period. It is of course more difficult to estimate how long a period was covered by the erection and destruction of these cities. Structurally there are great differences between the buildings of each city and its successor, but, on the other hand, the objects found in the different strata are almost indistinguishable. Sir John Marshall, taking these facts into consideration, provisionally assigns the first city to about 2700 B.C., the second to about 3000 B.C., and the third to about 3300 B.C.

Recent excavation, whilst confirming the previous evidence of a close connexion with the Sumerian civilization of Mesopotamia has also revealed striking differences, and it is proposed to recognize this fact by substituting for the name Indo-Sumerian, formerly given to the newly discovered culture, that of Indus. It is claimed that connexions can also be traced with Seistan, Transcaspia, western

Persia (in the proto-Elamite period) and even with pre-dynastic Egypt, but it is as yet impossible to form any definite conclusions as to the relations of the Indus civilization with these various regions.

The remains of Mohenjo-Daro are built of well-burned brick usually laid in mud, but occasionally in gypsum mortar, with foundations and infillings of brick. One of the best examples of building is a large bath or tank near what is believed to be the chief temple of the city. It measures 39 by 23 feet, is 8 feet deep and is fed from a well near by, and the water from it was conducted outside the city by a drain (plate 1), which is 6 feet in height with a corbelled roof. The greater number of the buildings, however, are private dwellings which are all well built and supplied with a system of drainage by which sewage was carried by drains into street tanks and thence removed by scavengers. Many of them also have bath-floors which strikingly resemble those in modern Indian houses. The buildings at Harappa are not so well preserved as those of Mohenjo-Daro, but, for the rest, closely resemble them.

Of the race of the inhabitants of these cities it is impossible to say much. Skeletal remains which have been found on the sites are dolichocephalic but appear to belong to a date subsequent to the destruction of the latest city of Mohenjo-Daro. The dead were apparently disposed of in two ways. Traces of cremation have been discovered, also one example of fractional burial, similar to those found at Nal in Baluchistan and Musyan in western Persia.

Of the material civilization it is possible to say more. Agriculture was practised, and specimens of wheat found at Mohenjo-Daro resemble the common variety still grown in the Punjab. Among the domesticated animals were the humped Indian bull, which must have been very plentiful, the buffalo, a short-horned bull, sheep, pigs, two kinds of dog, the horse and the elephant. The wild animals most frequently represented on the seals found, are the tiger, elephant and rhinoceros, which seems to indicate a damper climate than that of the district today. The practice of spinning and weaving is attested by numerous spindle-whorls, and some scraps of fine woven cotton material.

Beside gold and silver the Indus people were familiar with copper, tin and lead. Copper they used freely for weapons, tools, domestic utensils and personal ornaments, and though some pieces of cast copper have been found, it was usually wrought by hammering. Bronze was used mainly for tools requiring a hard cutting-edge and contained

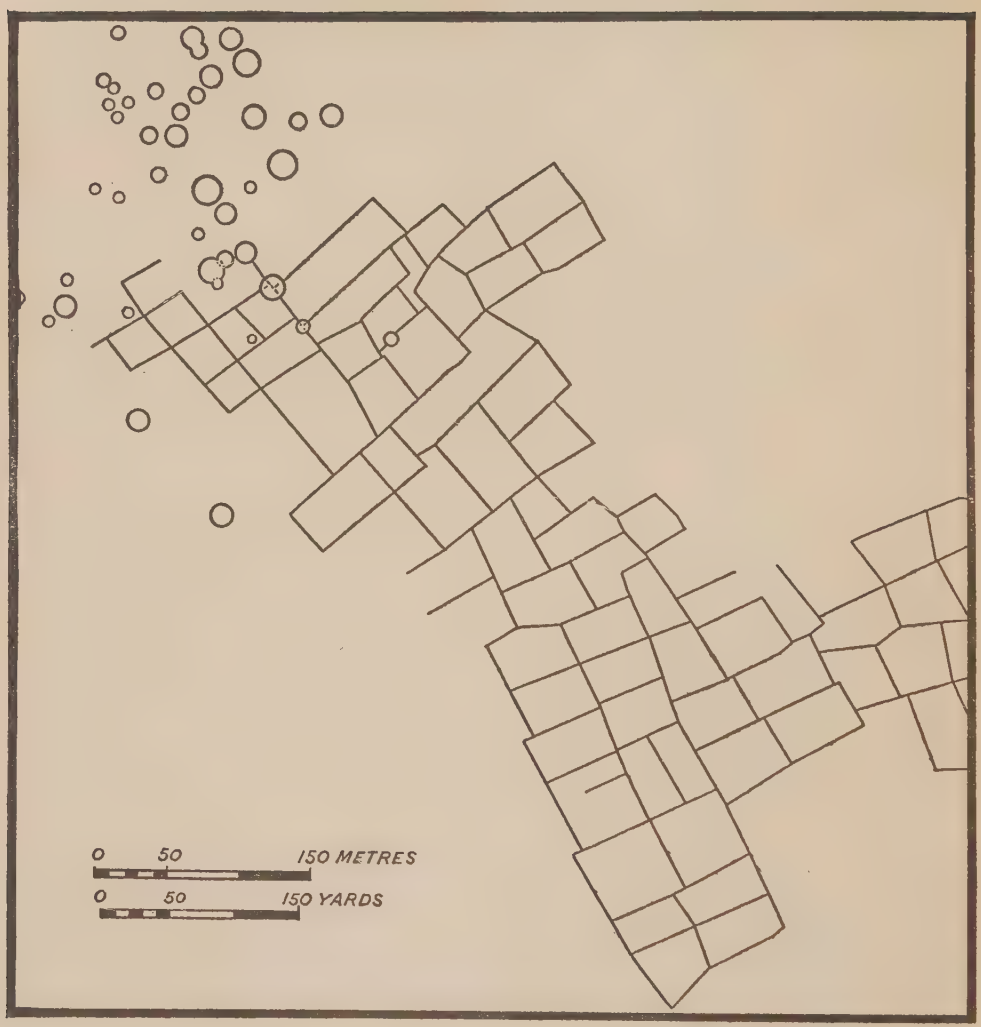
from 6 to 12 per cent. of tin, but tin was evidently rare and the number of bronze objects is comparatively small. At the same time the influence of the Neolithic period persisted and knives made from flakes of chert, stone maces and celts, and stone weights, are all very common. Shells were also used for a variety of purposes, being imported, as in Sumer, from the sea coast. Personal ornaments are very numerous and varied, many being decorated with blue encaustic faience. Pottery was mostly a plain undecorated ware but painted ware is not uncommon. As a rule the designs are painted in black on red slip and this red and black pottery has been found in northern Baluchistan, Waziristan and Seistan. The most typical objects on these sites are the inscribed seals, of which nearly a thousand have been found. Some of these are finely engraved with designs of animals and many are inscribed with pictographic signs which have not been deciphered. A small proportion of these signs are said to resemble early Sumerian pictographs. Some of the engraved seals are illustrated here. (Plate II).

A striking feature of the excavations and one which (it is claimed) argues a very peaceful state of society, is the great scarcity of weapons. Amongst the finds in the earlier levels at Harappa, however, was a large copper vessel containing a mace-head, 2 double-axes, 7 daggers, 2 lance-heads, 16 spear-heads and 21 celts, as well as various copper tools. Another interesting object from these earlier strata is a model in copper of a two-wheeled cart with a gabled roof and a driver seated in front, which is one of the earliest known examples of a wheeled vehicle. Further details will no doubt be given in the monograph on Mohenjo-Daro which is to appear early in the summer.

## PREHISTORIC FIELDS IN HOLLAND

Dr van Giffen, Director of the Biologisch-Archaeologisch Instituut of Gröningen University, has recorded the presence of cultivation-plots, resembling our ' Celtic fields ', in his country. In a letter to the Editor, he says : ' During the last ten years I have been carrying out archaeological investigations on a heath to the north of Zeyen, in the district of Vries, province of Drenthe. There are about 165 round mounds of the stone, bronze and iron ages, a megalithic tomb, and an area of ancient cultivation. The fields composing the latter (see fig.) are called by some[1] " Romeinsche legerplaatsen ", or,

[1] John Picardt, *Korte beschrijvingen van eenige vergetene en verborgene antiquiteiten etc.*, 1660, p. 41.




ANCIENT FIELDS AT ZEYEN, HOLLAND
(after plan by Dr van Giffen, by permission)

better, " heydensche legerplaatsen "; and they are apparently equivalent to the Celtic fields of England. They also occur near Emst in the province of Gelderland, where one such area was recently found by Dr J. Butter. It was recognized as such by Baron F. E. van Heerdt and confirmed by me '. Returning to the fields at Zeyen, Dr van Giffen continues : ' Each year I have devoted my attention to some portion of this area ; and I hope thus before long to complete my survey of the whole. In two or three places the small walls separating the fields come in contact with a round mound, and in each case I found that the wall underlay the mound. These mounds belonged in every case to the Iron Age—as far as I can make out to the period between the 2nd and 8th centuries A.D., but the objects discovered are difficult to date precisely. On the north side, where there is contact with the mounds, there is clear evidence of tillage. Now under the round mounds one finds the arable land, in the form of narrow fields with field-ditches of the early Iron Age or late Bronze Age. In my opinion these fields (*legerplaatsen*) originated during the La Tène period. In our case they lasted, I suppose, until Roman times, say until the 2nd century A.D. Generally speaking I regard the " legerplaatsen ", and " kringgrep-urnen-velden " (urnfields with circular trenches) as contemporary '. Dr van Giffen had already suspected, from the evidence of the associated burial-mounds, that the ' legerplaatsen ' might be of Celtic origin, the more so since enquiries of Danish and North German archaeologists failed to elicit any trace of such fields in those countries. Thus the Editor's hypothesis (put forward in his *Air Survey and Archaeology*) that our English prehistoric cultivation-plots were introduced here by ' Celts ' is found not to be in disagreement with the Dutch evidence. With Dr van Giffen's kind permission we reproduce here a copy of his plan of part of the cultivation-area at Zeyen. We hope to publish later on an article by Dr van Giffen himself—perhaps two.

## CUNEIFORM INSCRIPTIONS IN SYRIA

We are indebted to M. Charles Virolleaud, Director of Antiquities in Syria, for kindly sending us a copy of his preliminary (unpublished) report to the Academy, submitted on 9 September 1927. The following is a summary :—

Some further information is now available about the fragments of Assyrian inscriptions discovered near Mishrife in the region of

Homs by M. le Comte du Mesnil du Buisson. The fragments were discovered at a depth of about 50 cms. on the pavement of a ruined and burned building, and M. Charles Virolleaud has presented to the Academie des Inscriptions et Belles Lettres a preliminary account of them. The fragments were found to make up 9 tablets, constituting four documents, the first document being represented by four examples, the second by three and the other two by one only. The first of these is entitled *Tablet of the treasure of the goddess Nin-Egal, patroness of the town of Qatna*, the second is entitled *Tablet of the treasure of the King's gods*. The title of the first document is in itself a revelation, since it shows that the building of which M. du Mesnil has excavated the remains was a temple dedicated to a Sumerian goddess, Nin-Egal, whose principal sanctuary was recently discovered by Mr Woolley at Ur. At Ur, however, she was associated with the gods Nin-Gal and Sin, but at Qatna she seems to have taken the chief place, and the treasure of this alien divinity was 7 or 8 times as great as that of all the other gods together. These native gods are described only by the collective title of ' the King's gods '.

This discovery of a Sumerian temple in the heart of Syria is obviously of the greatest interest both from the point of view of history generally, and that side of it which deals with the distribution of cults. Incidentally this document settles an important point of ancient topography by identifying the site of the city of Qatna with the modern Mishrife. The inventory of the treasure of Nin-Egal is in the Accadian tongue, and the writing is of the Cassite epoch, that is to say of the second millennium B.C. There is good reason to suppose that it is earlier than the El Amarna letters in which Qatna is mentioned. (Four of these letters are in fact from Akizzi, a king of Qatna). Half the objects enumerated are of gold, most of the others of lapis-lazuli and other stones. There are none of bronze, copper or silver, and very few of iron. Amongst the names of those who had given gifts to the temple are two, AKI-TESUB and ADDU-NIRARI, which seem to be Mesopotamian. There is also a personage bearing the name LULLU and the exclusively Babylonian title of SAKKANAK. These facts seem to give good evidence that the influence of the Mesopotamian civilizations was not always exercised at a distance, and that Babylon occasionally intervened directly in the affairs of Syria. It may be added that M. du Mesnil found at a distance of 700 metres from the temple at Qatna a fragment of a contract, written, like the inventories, in cuneiform.

## BRITISH GOLD COINS FOUND NEAR WESTERHAM, KENT

Mr E. G. Box has sent us the following particulars as to the circumstances in which this interesting find was made. Workmen digging for gravel on Hosey Common near Westerham on 15 June 1927 found a hollow grey flint containing 14 gold coins. The flint (see plate) was found at a spot where the common has a top layer of three inches of peat, covering a layer of 18 inches of mixed peat, loam and loose chert, below which is red chert. It was in the second of these strata, at about a foot from the surface, that the find was made. This point on Hosey Common lies between the camp in Squerries Park and French Street farm where a coin of Cunobelinus is said to have been found in 1889. The flint, which is about the size of a small cricket ball, has two holes in it, the larger about $\frac{3}{4}$ inch in diameter, and, when discovered, the interior was choked with peat and roots.

Mr G. C. Brooke of the British Museum, who has examined the coins, sends us the following description of them. The coins belong to the latter part of the 2nd century B.C. and were struck off by Celtic tribes either in the north of Gaul or in the south of Britain. The famous gold staters of Philip of Macedon, of which an enormous number were coined, were the prototype of a large native coinage in central and north Gaul and Britain in the 2nd century. In the north, where the coins were distant descendants of the original staters, the design (a laureate head of Philip and a two-horse chariot) is scarcely discernible. The first coin illustrated is of the Bellovaci, a tribe lying to the north-east of Paris ; the head (to the left) is an uncouth representation, with the wreathed hair the conspicuous feature, the face itself very small ; the chariot has disappeared, leaving one barbarous horse and a few ornaments. No 2, a coin of the Atrebates, a tribe north-west of the Bellovaci, is still more barbarous ; the head is hair and wreath only, the horse a series of disjointed curves and pellets. The remaining coins are similar in design to no. 2, but have the stylistic features peculiar to the earliest coins that are found in large numbers in Britain and which have therefore the best claims to being an indigenous British coinage. The head is a stereotyped form with the laurel wreath running down diagonally from right to left, crossed by a fillet circling the head in the opposite direction. The horse, on the reverse, can be made out from studying the various specimens; the head is to the left, the body generally a couple of curves and the legs are like four dumb-bells ; owing to the plan of the coin being smaller than the die, in some cases only part of the design shows.

The use of the hollow flint as a receptacle for the coins is interesting. A similar flint, containing eleven gold coins (Gaulish staters) was found near Rochester in 1912 and another was found last year in Chute Forest, Wilts. In 1839 a hollow sandstone containing 150 pennies of Henry II was unearthed at Ampthill, Beds.

## STONE MONUMENTS OF BALUCHISTAN

The two illustrations we reproduce here are of considerable interest to European archaeologists. Baluchistan lies on the route from India to the west ; and recent discoveries in India have revived an interest in adjacent lands. The photographs were taken in 1915 by Mr V. S. Manley, of Warminster, to whom we are also indebted for the information from which the description has been compiled.

The little burial-circle shown in plate I is situated about two miles west of Gulistan, on the plain of Pishin, beside the route to Kandahar, near the Afghan frontier. It surrounds the grave of a man, indicated by the upright stones at the head and foot. (The graves of women have a third stone placed in the middle). The grave mound itself is covered with white felspar. The association of white stones with burials is very common, and has been recorded of the prehistoric Iron Age graves at Harlyn Bay in Cornwall (R. A. Bullen, *Harlyn Bay*, 3rd edn. 1913, p. 34), in a Bronze Age barrow in the Isle of Man, and at the present day in Inverary (*Folklore*, 1893, pp. 13–14). Mr Manley states that the cemetery in which this grave occurs is the only one where he has observed a *grave* surrounded by a circle. Sir Dennis Bray thus describes the other circles which occur in the Brahui country (*Census of India*, 1911, vol. iv, 1913 : Baluchistan, par. 109) :— ' There are everywhere circles of stone called *chap-jahi* or dancing-plots, which mark the sites of frequent dances of some wedding procession '.

The point of the last remark lies, for us, in the association of the circles with dancing and marriage. It recalls the Merry Maidens of Buryan, near Penzance, whose Cornish name means ' dancing stones '. The legend relates that they are maidens who were turned to stone for dancing on Sunday. So, too, the old name of the stone circles at Stanton Drew, in Somerset, was ' the weddings '; and in the North of England stones called ' Bride Stones ' are quite common. Do Sir Dennis Bray's words record a fact of modern occurrence, or a legend attached to the stones ? In either case the similarity of custom is remarkable, though we must beware of making rash inferences from it.

The trilithon shown on plate II occurs in the same cemetery. It stands on the grave; and from the lintel, and from one of the upright supports, are suspended the horns of several buffaloes. This is done to invoke the aid of the departed spirit on behalf of the suppliant's buffaloes, which provide him with milk and are an important factor in his domestic economy. In the case of a hunter who desired good hunting, the horns of a markhor (wild buffalo) are similarly offered. Thus over the doorway of the mud-built masjid (mosque) at Sheikh Manda near Quetta, are placed the horns of markhor from the Takatu hills. These denote a hunter's shrine.

It is interesting to find these prehistoric rites still observed, and to learn from them—as we never can from our own remote ancestors—the thoughts and desires which prompted them. We hope later on to publish an account of some even more distant ' megalith-builders ' from the pen of one who knows them intimately.

## SHIP BURIAL IN THE ISLE OF MAN

Mr P. M. C. Kermode, contributes the following :—

On the highest point of the low range of sandhills which crosses the north of the parish of Andreas, at a height of 182 feet above the sea, and at a distance of a mile due south of Rue Point, stands the mound called Knoc y doonce, recently examined. It makes a notable landmark near the mouth of the Lhen, which was the favourite landing-place of our Celto-Scandinavian settlers in the ninth century.

The diameter of the mound was found to be 51 feet, the height appeared to be about 9 feet, above the level of the field, but more than twelve inches of this was due to the paring of the hill-top for some yards around, whence had been brought the heavy red sand of which it was composed ; the plough had helped to reduce the level round the base. The northern face, which had been worn by sheep and weather, showed in section, at a level of two to three feet below the grass, red sand with a layer, 6 to 8 inches thick, of small stones upon which more sand had been heaped to form a worthy monument to the person buried. On the western side were remains of a low retaining-wall which I was unable to trace all round, but loose boulders suggested that it had been carried for some distance across the north face also. From the top of this wall, the layer referred to, of small, tightly-wedged stones, extended to form a compact vaulted roof rising to the centre and protecting the grave and its contents ; this roof had been freely sprinkled with broken

pieces of white quartz—possibly to bind and consolidate the material before it was covered with sand.

A trench from the northern face, 8 feet wide, brought us when within a few feet of the centre to a streak of brown, at a depth from the top of 6 feet 6 inches. Following this NE and SW, I noticed first an iron axe-head of unusual shape, a sword in pieces (evidently by rust and natural decay), with traces of its sheath adhering, and the plain iron boss of a shield. Close by was a socketed iron spear-head and near it some bits of bronze with fragments of a leather strap ; the most interesting piece of bronze being a cloak-pin which had apparently been ornamented with enamel. About the middle space was an iron bowl, 15 inches diameter, by 5 inches deep, ornamented by small bosses. This had been covered with canvas ; it was now filled with sand and fell to pieces when lifted out. At the south-west end was a hammer with a pair of smith's tongs, and, not far away, the leaden weight of a fishing-line. A Norwegian knife with bone handle was found by the bowl and another with the line-weight. All along this brown layer I noticed a good many boulders which perhaps had been placed under the boat to support it while the sand was being shovelled in ; at the SW end several of these boulders had been piled into a little heap, 15 inches high and 20 inches diameter, possibly marking the position of her stern at 8 to 9 feet west of the centre. My reason for suggesting a Boat Burial, which is a type not hitherto met with in the Isle of Man, is that scattered throughout the brown layer, were iron bolts, many with remains of wood attached, of a size suitable for a boat, and there seems to be no other explanation for their presence and distribution. They were in no definite order, but I noted the furthest points NE and SW of the centre where they were met with, suggesting the length of the boat as about 30 feet, and in width I traced them for about 6 feet, while the fact that the first I saw were immediately under the vaulted roof would allow for a vessel about 3 feet high.

No trace of human bone was met with, but compact flakes of black, fine and soft powder must represent decayed animal matter as distinct from the paler traces of decayed wood and fibre. At the NE end however, in a position which seems to have been just outside their prow, on the starboard, some greatly decayed fragments of large bone were found, including the lower jaw of a horse as well as some bits of its harness. On the same level as all these finds, at a point 12 feet NW of the centre, was a patch, about 15 inches diameter, of

flakes of dark, soft matter, with a few small boulders intentionally arranged.

No trace of a secondary burial was found, and the place, period and conditions seem to be in keeping with the view that at Knoc y doonee we have one of the latest heathen burials in the Island.

## ETRUSCAN CONGRESS

A permanent committee for the study of the antiquities of Etruria has recently been established in Florence, and its activities have already borne considerable fruit. An important Italian congress of Etruscan studies was held in Florence in 1926, and it is to be followed by an international congress at the end of April of the present year, beginning in Florence on the 27th of that month, and closing at Bologna on the 3rd of May, after a visit to the Etruscan city of Marzabotto. The British representatives on the International Committee are Dr Thomas Ashby, Mr Bernard Ashmole, Professor R. S. Conway and Dr David Randall-MacIver; the last-named is to open a discussion on the archaeological material of Etruria proper in relation to that of the other regions of Italy during the Villanovan period; while Dr Ashby is to read a paper on the Roman road system in southern Etruria in relation to that of the Etruscan period. The Congress will certainly be one of great interest, and numerous scholars of all nations will take an active part in it. We therefore venture to call the attention of readers of ANTIQUITY to the opportunity which it offers of visiting Florence under the most favourable auspices. Full information can be obtained from the Segreteria Generale del Congresso Internazionale Etrusco, via Ginori 13, Florence, Italy, who will forward particulars in regard to hotels, special railway fares, etc. The membership fee is 36 lire (8*s*.), and members have free admission to museums, etc., in Florence.

# Recent Events

*The Editor is not always able to verify information taken from the daily press and other sources and cannot therefore assume responsibility for it.*

A bronze arrowhead inscribed with Phoenician characters has been found in a burial-cave at Roueisseh, in French Syria. The tomb had been plundered, and there was no means of dating the arrowhead except by comparative methods. Father Ronzevalle attributes it to the 12th or 13th century B.C. and translates the inscription 'arrow of AD[D]ô, son of AKKI'. MM. Dussaud and Virolleaud date it, however, to the 10th century. (*Mélanges de l'Université Saint Joseph*, [Beyrouth], xi, 1926; reviewed by M. Dussaud, and illustration reproduced, in *Syria*, viii, part 2, 1927, pp. 185–6).

The gun-flint industry of a district in Berry (France) is described by M. Schleicher in the *Bull. de la Soc. préh. française* (xxiv, October 1927). After 200 years of activity it is now almost extinct. A bibliography of the subject, by the same writer, appeared in *L'Homme Préhistorique* for May–June 1927.

The reported discovery of the tomb of Genghis Khan proves to have been a hoax. It deceived no one but the Editor of a certain newspaper.

M. Dussaud has published a learned dissertation on Syria and Palestine about 2000 B.C. It is concerned with some names of places, peoples and rulers found in Egypt, inscribed on vases of the 11th dynasty (2160–2000, Breasted-Meyer). These throw much light on the geography and political conditions of the time, and on some Old

Testament names. The close resemblance of some of the personal names to others known to be contemporary with the 1st dynasty of Babylon (2169–1869 B.C., Langdon-Fotheringham) is evidence in support of the shorter chronology for Egypt. (*Syria*, viii, part 3, 1927, pp. 216–33).

In the current number of the *Journal of Hellenic Studies* (xlvii, part 2, 1927, pp. 234–63) is a very full report on archaeological work carried out in Greece and the Aegean during 1926 and 1927. It is compiled from first-hand sources by Mr A. M. Woodward, Director of the British School at Athens, and is too lengthy and too compressed to summarize. No less than thirty different undertakings are dealt with.

The Royal Commission on Ancient and Historical Monuments and Constructions of Scotland has recently completed its survey of the Outer Hebrides, Skye and the smaller islands. The district is remote and inaccessible, but possesses many important archaeological remains. We feel sure that the Commission's Inventory, announced by H.M. Stationery Office, will fully live up to the high reputation secured by previous volumes.

Mr J. D. Rockefeller, junior, has offered £400,000 for the purpose of building and endowing a Museum of Palestinian Archaeology in Jerusalem. The offer has been accepted. The gift is a generous one ; we hope that the building will be specially designed as a museum, and not as an architect's advertisement.

The Swedish Archaeological Expedition has excavated 44 tombs in Cyprus of the period 3000–1600 B.C. We hope to publish fuller information later. (*Dernières Nouvelles*, Brussels, 10 November 1927).

In a letter to *Nature* (17 December 1927, p. 874) Mr M. R. Drennan, of Cape Town University, gives reasons for a new estimate of the cranial capacity of the Piltdown skull. His calculations give 1415 c.c., or some figure between 1346 c.c. and 1484 c.c.

On page 352 of Vol. 1 of ANTIQUITY we referred, in a footnote, to fishing implements used today in Africa. This needs correction. The implements in question are of iron, not stone, though they are referred by M. Laforgue to *prototypes* in flint.

An expedition is being sent by Yale University to continue the excavation of Dura (Salihiyah) on the Euphrates above Baghdad. It will be under the direction of Professor Rostovtzeff, and we understand that Professor Cumont, who has already dug there, may also join the party. (*The Times*, 18 January 1928). For previous excavations there see *Fouilles de Doura-Europos*, 1922–3, Paris, 1926 (P. Geuthner).

New excavations are to be undertaken at Solutré. (*Le Matin*, 10 January).

An Italian expedition, directed by Professor Guidi, has been excavating the acropolis of Amman in Transjordan. (*Il Lavoro d'Italia*, Rome, 29 December 1927).

Eighteen cinerary urns have been found in a mound at Landford, Wilts. They belong to the transitional period between the Bronze and Iron Ages. (*The Times*, 15 December 1927).

An Iron Age pottery site has been found at La Panne on the Belgian coast, midway between Dunkirk and Nieuport. It is being excavated by the Musées royaux du Cinquantennaire. (*Nation Belge*, Brussels, 7 January 1928).

The mound of Kouyunjik at Nineveh is being excavated by the British Museum. The work is being directed by Dr R. Campbell Thompson who contributed an account to *The Times* of what has already been done and what he and his assistant, Mr R. W. Hutchinson,

propose to do. Financial assistance is being given by the Percy Sladen Memorial Fund and by Merton College, Oxford. (Dr R. Campbell Thompson in *The Times*, 28 December 1927).

A correspondent, who evidently writes with knowledge and authority, contributed a critical account of Woodhenge to *The Times* (28 December 1927), traversing some of the conclusions put forward by the excavators.

Dr Ashby's annual reports on 'Recent Excavations in Italy' were published in *The Times Literary Supplement* (15, 22, 29 December 1927).

Eighteen fragments of fossil men and apes have been found by Dr Wilhelm Freudenberg in pleistocene sand-pits near Heidelberg. His discoveries would appear to be of the first importance, but they have not yet been published. (*Nature*, 31 December 1927).

The excavations at Harlow in Essex (see ANTIQUITY, i, 365–6) have revealed a small Roman Temple (*Illustrated London News*, 31 December 1927). Another Roman temple at Worth, near Sandwich, Kent, has been excavated by Mr W. G. Klein, F.S.A. Beneath it were pits containing pottery of the early Iron Age. (*Antiquaries' Journal*, viii, 76–86).

The wall-paintings at Iram, Rhodesia (reproduced in ANTIQUITY, i, facing p. 226) are illustrated (with others), and discussed by Miss Margaret Taylor in the *Illustrated London News* (10 December 1927).

# Reviews

EARLY LIFE IN THE WEST. By J. A. Davies. Clifton: Baker and Son. 1927. pp. 45 and 22 illustrations. 1s.

This brochure is a reprint of articles which appeared in the *Western Daily Press*, and therefore we can presume that it is intended primarily for the general public. The general public, however, will not benefit from it so much as the serious archaeologist, who will find in it many very valuable data—the results principally of the thorough and scientific work carried out by the Spelaeological Society of the University of Bristol. It is difficult to compress into so small a book such a wide range of subject (Early Palaeolithic to Romano-British), and the author's style does not make easy reading. There are many errors of syntax and several mis-spellings. Some sentences have to be read over twice before their meaning is clear. Apparently the original newspaper articles have not been revised. If the author had rewritten them and had given us a clear connected catalogue of the multitude of important facts connected with the Mendip region that he has at his disposal, and had omitted his generalizations, with many of which it is necessary to disagree, the result would have been a book of very great archaeological interest. The illustrations are good, but the titles of them are in most instances quite inadequate, and the references to them in the text require revision. For example we can find no description or details of the vessel depicted in fig. 11, no. 3, and if we follow the text the pottery bowl illustrated in fig. 21 is one of the 'fine examples of smith's work'. We cannot agree that the people who brought over the leaf-shaped swords were 'attracted by Irish gold', nor that they 'reclaimed the valleys for agriculture', nor that at All Cannings 'the manifold details of new culture were introduced by traders' as distinct from invaders *en masse*. Again, we must disagree with the implication on page 29 that the peoples of the middle Bronze Age never buried their cinerary urns in cists in barrows. The author is apparently a disciple of the 'diffusionist' school.

Having laid stress on its faults, it behoves us to praise the merits of this book. In it the archaeologist will find many very valuable facts connected with an interesting region of which Mr Davies has an extensive knowledge. R. C. C. Clay.

THE CENTRE OF ANCIENT CIVILIZATION. By H. D. Daunt. The Bodley Head. 1926. 10s. 6d.

As a rule the dust-cover of a book is a nuisance; but sometimes, as in the present case, it serves a useful purpose. 'This book is a new interpretation of cuneiform inscriptions and ancient traditions, which transfers to the Middle East the early empire of Sumer and Accad, places the Garden of Eden and the Jerusalem of King David in Manipur, and identifies Moses the Hebrew with Sargon of Agade and Siva of India'. When a man reads that, and instead of taking it as a plain danger-signal proceeds to lay out half-a-guinea on the work thus described, at least he does so with his eyes open.

He will become possessed of a neat-looking volume of 280 pages, well printed, well turned out, but otherwise without a single redeeming feature in it from beginning to end. We do not enjoy having to say such things ; authors, like other men, have their feelings, and these should be respected ; but anyone who brings out such a book at such a price is simply asking for trouble.

How does the author set about proving his thesis ? Let him speak for himself. ' The names of men, cities, and countries occurring in the Old Testament are a curious medley of many languages ; Accadian and Sanscrit words abound, the Hindu word for "very great", *maha*, occurs in such forms as Mahanaim, Mahalath, and Mahalaleel ' (p. 49). [Someone else once argued by similar philology that the Maccabees were a Scottish Highland clan]. ' Sanscrit changes a primitive initial *i* into *s*, therefore the Su people of Assyrian times would have been the Iu people of primitive times, and the Egyptians even mention the Iuu together with the Lushai in connection with other races of the East. A people called Lushai now live south of Manipur, so the Iuu may be placed in the neighbourhood. From these indications the Su, Suya, or Sukhu of the Assyrians and the Iuu of the Egyptians may be identified with the people whose English name is spelt phonetically Jews, and these are sometimes called Sukees. Many Jews are rather tongue-tied, and lisp in their speech, pronouncing their great prophet's name Motheth ; this peculiarity they share with the Burmese, as a glance over a map of Burmah will show, so there must have been considerable mingling of blood ' (pp. 75, 76). ' In the East a comb is the symbol for a woman, and the word may perhaps have been coined from coimba, the seat of a goddess ' (p. 107). ' The Celtic race represented so largely over Central Europe derived their name probably from *Khel*, the Indian term for a tribe, the Etruscans of early Italian times, from whose country so many of the ablest Italians have come, appear from their monuments to have had the oblique almond eye of the Far East, the Goths bore a name which I believe to be identical with that of the Hittites, and the Gods of the Anglo-Saxon and Scandinavian races will be identified with the Kings of Sumer and Accad ' (p. 159 : the punctuation is the author's). ' Another title given to the king was *Ai* or *Ao* contracted generally into *Ah*. . . . In Persian names of kings it occurs in the form *Kai*, which was corrupted into Kava . . . so it may be recognized perhaps in our term for an old man, *gaffer* ' (pp. 166–7). ' The episode of Esther daughter [*sic*] of Mordecai supplanting Vashti at the Persian Court would appear to identify Moses [*sic*] with Merodach and Esther with Ishtar and the Ten Commandments, the Tirash of Sargon, the inscribed stone ' (pp. 205–6). ' The name of Moses may be a cognate of *Moscus*, a *calf*, and the golden calf erected by Aaron may have been intended to represent the absent Moses . . . but the word *mo* is the Turkish term for the first personal pronoun *I* [it isn't] so the original name may have been Moshi the I man, or Musa the great I or I am ' (p. 210).

On p. 254 we learn that the Hebrew prophet Samuel is to be identified with Hammurabi ; he with a personage called Bel Pilipsu in Accadian records ; and he, in his turn, with Pelops. We remember that Pelops was cut up and boiled : but it appears that there is a Chinese word *mien*, which is so complaisant as to signify ' to cut up and boil ' and also ' to depose '. Therefore the gruesome story of the fate of Pelops merely means that Saul deposed Samuel, once ' the great Hebrew king of sober history '. [The author evidently uses an edition of the Old Testament differing in some respects from the copy on the reviewer's shelves]. Next we learn that Samuel may also be identified with ' Jared or Ehud ' the deliverer who assassinated Eglon

king of Moab. Yet more startling deductions follow from this ; for Eglon was a very fat man, and ' the statues of Shoden in Japan are made always very fat, and so would help to identify Din of Egypt with Eglon king of Moab, therefore Samuel must have assassinated Godama Budha ' (p. 257).

A book like this is an object-lesson in the advantages of a press censorship. If no book could appear without the *nihil obstat* of some responsible body, what a deplorable waste of time, money, energy, and materal would be saved ! Seriously to attempt to discern what it is driving at would be to risk the disastrous effects which, we are told, come from grappling with the problems of Greek mythology. On p. 185 our author warns us : ' The Greek stories of the gods are very numerous, and many of them are duplicate stories hidden under their different aliases ; however it is not advisable to attempt to identify all the Greek gods and heroes, if one wishes to retain his mental balance, for grandfathers, fathers, and sons exchange their relative positions like in a general post '. Too true ! R. A. S. Macalister.

AN INTRODUCTION TO ANTHROPOLOGY. By Wilson D. Wallis, Professor of Anthropology, University of Minnesota. Harper. 1927. pp. xvi, 520, 33 figs.

It is remarkable that Tylor's famous textbook of anthropology, published half a century ago, has had no successor in English until the appearance of the present work. For, though Professor Wallis has modestly entitled his book ' An Introduction ', it is in plan much more—a textbook of the whole science. A reviewer is thus absolved from comparison with the sketchy work of James, with Marett's brilliantly written book in the Home University series, or with the very able and stimulating work of Kroeber.

Following an introduction by Professor H. S. Chapin, the author defines the scope of anthropology. The first part deals with man's kinship, his place of origin, and the physical types of mankind; part II with ancient man. Part III contains chapters on economic and industrial activities—environment and culture, fishing, hunting, domestication of animals, agriculture, transportation, trade, money and finance, foods and—more picturesque than relative topics—' Drinking, Smoking, and Chewing '. Science, magic, and religion are discussed under the subjects of man and the animals, nature and natural phenomena, botany, geography, psychology, time divisions and the calendar, amulets and charms. Part VI deals with social morphology and structure: ethics, opinion, kin and kinship terms, social organization, status of the child, position of woman, birth, marriage and death rites, language, mythology, decorative art, culture and culture areas, diffusion of culture, and ' Varied Achievements of Mankind '.

The structure of the work, as thus indicated, is soundness itself. It represents, as might be expected from the progress of the science of anthropology during fifty years, a considerable advance. Especially commendable is the inclusion of archaeological material as an essential, indeed basic, part of the science. Equally important in such a book is soundness of judgment in developing the plan, and in handling the great and varied accumulation of facts, so that on the one hand inexactness in detail and on the other too great generality find no place. Tylor had such judgment in supreme degree. Here his successor falls short. Some examples may be quoted to demonstrate the weakness. In dealing with the early migrations of peoples

(p.39) he characterizes Great Britain as follows:—'In Great Britain a long-headed people were driven out by Shortheads. Celts were displaced by Romans; both were dispossessed by Saxons, Angles, Danes, and Jutes'. Apart from the glaring inaccuracy of the first sentence, the whole statement is hopelessly inadequate. Africa and Polynesia are described in three sentences so general that they leave no impression at all. On page 42 the author states that Mediterranean man is characteristic of the Balkans. On page 145 he states:—'Previous to contact with Europeans the Maoris were not agriculturists'. The domestication of the horse is described (p. 130) in two sentences: 'Probably the horse was domesticated in or near Mesopotamia, whence it was taken to Egypt, Asia Minor, and Greece. It was used by the Britains (*sic*) when their island was invaded by the Romans'. The accuracy of this passage is not above reproach and as an account of the domestication of the horse it is ludicrous. In describing the preparation and fertilization of the soil Maori methods are compressed into a sentence (p. 151): 'In New Zealand the soil was prepared by mixing light soil with heavier, to make the ground more suitable for the yam'. The statement here, which conflicts with an earlier one already quoted, is surely insufficient to describe a system involving three genera of food plants of which the yam was in fact by far the least important. The list of passages open to criticism of this kind might be indefinitely prolonged.

Turning to general questions of method, in dealing with archaeology a teacher is under pressing obligation to warn students of the lack of evidence on many points. Statements that fire was first used in the Mousterian, that copper, bronze, and iron were all known earlier in China than in India and earlier in Chaldea and Egypt than in 'Asia Minor and the Orient', require but do not receive serious qualification. It is rash thus to put forward the suggestion (p. 77) that the Chellean hollow scraper was used 'for scraping rounded objects, such as arrow shafts', that the pre-Chellean falls in the second Interglacial (p. 77), or that the Neolithic was shorter than the Iron Age (p. 90).

A word must also be said about the illustrations. If racial types are to be figured, are not half-tone blocks preferable to line blocks? And is it not important in a text-book intended for students of anthropology to acknowledge the sources from which illustrations are taken?

But in spite of these blemishes the work does represent a considerable achievement. It is a courageous attempt to compress the mass of material collected by ethnographers since the science of anthropology began. To Professor Wallis who has made the attempt full credit is due not only for courage but also for the ability to lay down a sound plan and industry in working through the immense literature. Such a book is greatly needed: it would be supplied by a new issue of the present work carefully edited.

H. D. Skinner.

THE PRINTED MAPS IN THE ATLASES OF GREAT BRITAIN AND IRELAND. A Bibliography, 1579–1870. By Thomas Chubb (late of the Map Room, British Museum); with an introduction by F. P. Sprent (of the Map Room, British Museum); and Biographical Notes on the Map Makers, Engravers and Publishers by T. Chubb, assisted by J. W. Skells and H. Beharrell. The Homeland Association, ltd., 37 and 38 Maiden Lane, Covent Garden, London (W. 2). 50s.

A well-known archaeologist once said that 'old maps' were of no value to the

archaeologist. He probably meant, to the student of prehistoric earthworks, or to those who are called field-archaeologists; but the disclaimer, even thus qualified, was unjustified. It is true that, when Camden caused the word 'Belgae' to be inserted on Speed's copy—for it is no more—of Saxton's map of Somerset, we are not greatly enlightened; for we can consult Camden's sources—Caesar and Ptolemy—with equal profit for ourselves, and, unlike Camden, we now have the aid of scientific archaeology to check the written word. But in multitudinous matters of local topography, an old map, if it is on a large enough scale, is an invaluable asset, for it marks a stage in our backward march from the known present to the unknown past.

Mr. Chubb and all those who have been associated with him (not forgetting printer and publisher) in the production of this splendid book deserve the congratulations and gratitude of students of British topography. It is an almost perfect example of that accuracy, thoroughness and learning which distinguishes the British Museum authorities. It is a life's work; and a reviewer feels that there is really nothing left for him to do but commend it in the highest terms to his readers.

The appearance of a bibliography such as this, however, presents an opportunity for discussing its subject-matter. The book under review makes no claim to deal critically with such a subject as the evolution of cartography within its selected range of time, though Mr. Sprent's introduction does provide a historical outline of the subject. The construction of maps and plans is a form of art—or perhaps, since the emotional appeal is absent, we should rather say a craft. It represents an attempt to communicate information from one person to others; and it involves a struggle with material, culminating in a mastery of that material. The early efforts are crude; skill is rapidly attained; but after a brief flowering period, decline sets in, and continues until the art is born again as the offspring of a new material. The same problem may recur, but it is set in a different form each time. The problem of the British map makers was to reproduce an accurate yet attractive map of the British Isles by means of engraving. Many aesthetically pleasing maps appeared during the 16th and 17th centuries (though we must except the pseudo-classical title-pages). But they were none of them accurate, and it was not until the appearance of the first, engraved, edition of six-inch Ordnance maps in 1833 that the peak of achievement was attained. In them beauty of draughtsmanship was combined with accuracy of detail in a manner which has never been surpassed. For three centuries the surveyor had striven for greater and greater accuracy, and the engraver to do justice to his results. For fifty years both succeeded; and the results are those plans which can often be bought for a mere song at a second-hand bookstall. By a curious coincidence, a new process was invented just when the one had triumphed. The future of cartography lies with penmanship and photography (not forgetting air-photography); but we are still, for the most part, producing maps in the old style—an engraver's style. Are we biased, or may we see in some archaeological plans, such as those referred to in the June number of ANTIQUITY (pp. 233–238), the heralds of a new and living *penman's* style, consciously designed for direct mechanical reproduction?

The materials upon which to base a philosophy of maps exist in the British Museum, where all those referred to in the bibliography (with a few exceptions, indicated) are to be found. And since it is a reviewer's duty to pick holes, and there is so little scope in the contents of the book, he must perforce look outside it: Mr. Chubb deliberately confines himself to *printed* maps published in *atlases*. No doubt this was right and necessary, but we regret it. We wish that he had included some of those printed maps

(also in the British Museum) which appeared separately. The scope of the book also prevents mention of Isaac Taylor, whose maps of Hampshire, Dorset and Herefordshire, on the one inch-scale, are so valuable for the field archaeologist. Isaac Taylor seems to have been the first systematically to mark ancient earthworks, such as camps and barrows, upon his maps; many have since disappeared but, thanks to him, they may still be recovered or authenticated, either on the ground or on air-photographs. His maps, and those of Greenwood, Rocque, Norden and others occupy an important position in the history of British cartography. Some of these maps were certainly used in the field by the first Ordnance surveyors, and influenced the style of the first one-inch Ordnance maps. (The actual copies of some of them, well-thumbed, are still in existence).

Then, again, no study of the evolution of the art can be made without reference to manuscript plans, for of course the bulk of the plans made before 1800 were never printed, nor were they drawn for that purpose. No doubt these plans are far beyond the scope of a book like the present, which is a book of reference, not a manual on the history of the subject. Yet we feel that books about both classes are badly needed. A bibliography of the *principal* loose printed maps—most of them county maps—would be invaluable. So too would be a study—it could not take the form of a complete list—of these manuscript plans, often on a scale as large as 1 : 3168, of which copies are to be found in the British Museum, the Public Record Office, and in the offices of most large country estates. A set of large photographic prints of over a hundred of these is bound up in the Library of the Ordnance Survey, and duplicates have been deposited in the British Museum. A separate catalogue of the manuscript maps in the British Museum and Public Record Office would be of the greatest use; and, to judge from letters received, would be appreciated by the general public. The value of such maps to the field archaeologist and to the student of place-names, land boundaries and perambulations, is very great, though as yet insufficiently realized.

SENNACHERIB'S INVASION OF PALESTINE. A Critical Source Study. By Leo L Honor, ph.d. New York: Columbia University Press. 1926. pp. 122. $1 75.

The author of this study states in his foreword that he chose Sennacherib's campaign in Palestine because there has been, of late, practically no new material discovered which throws light on the subject. 'Consequently, all the differences in the reconstruction of the story of that event must be attributed to differences in interpretation, and the analysis of the bases for these differences will help to illustrate the different schools of thought engaged in the reconstruction of the Biblical story'.

The plan of the book comprises general description of the Assyrian sources, which is followed by an analysis of the accounts therein found; then we have a description and analysis of the Biblical version of the campaign, as given in II Kings and II Chronicles. The third chapter is devoted to the Prophecies of Isaiah. Each chapter is followed by a list of references, and there is a bibliography. In the second chapter the author includes the description by Herodotus of an Egyptian legend of how Sennacherib marched a large army against Egypt, and how field-mice devoured the bows and handles of the shields of the Assyrian soldiers, so that when they came to fight they were weaponless.

Those who have not studied the matter carefully would perhaps have thought that this campaign of about 701 B.C., one of the landmarks, so to speak, of history, referred to in considerable detail in three books of the Bible, described on several Assyrian cylinders, and in Assyrian inscriptions, perhaps referred to by Herodotus, was known with some certainty, and that the main outlines, at least, were securely fixed. A perusal of the book under review will dispel that impression. We do not, as a fact, know whether there was one campaign, or two; we do not know why Hezekiah stripped the Temple and Palace of their treasures, if he had determined to defend Jerusalem; we do not know what happened when 'the angel of the Lord went forth, and smote in the camp of the Assyrians an hundred fourscore and five thousand'. But, if we are content with a not too exact view of the distant scene, there are certain broad outlines which may be accepted, such as the devastation of the fenced cities of Judah, the capture of Sidon and other Phoenician cities by Sennacherib, the capture of Askelon and Ekron, the commencement of the siege of Jerusalem, the raising of the siege, the return of Sennacherib to Assyria. And to this we may add that we know the steps that Hezekiah took to divert 'the brook that flowed through the midst of the land', and we know all about the water tunnel that he caused to be excavated, leading from Gihon, through the hill of Ophel, to the Pool of Siloam, an important provision for defence. But there is much that is uncertain, and Dr. Honor's careful study deserves the attention of students of ancient history. He presents the various theories and hypotheses in a clear and impartial manner. He points out for instance, that the description of the campaign in Palestine, as given in the Rassam cylinders, is in very close correspondence with the account given in II Kings xviii, 13 to 16, but that it does not agree with the rest of the account in the same chapter. In accordance with the former the campaign was entirely successful; in accordance with the latter Sennacherib had to retire hastily to Assyria. Of course, as the author realizes, the Assyrian annalist was not likely to describe a failure; but even the accounts in Kings are, in themselves, not free from difficulties of interpretation.

For the ordinary reader it would have added much to the value and interest of the book if translations of the Assyrian sources had been given, or at least the more important of them. As it is, although there are copious notes and references to translations, there is not anywhere in the book an actual translation of an Assyrian text. Perhaps this improvement might be considered, in case a new edition of this study is issued in the future. C. F. CLOSE.

A SHORT HISTORY OF ART FROM PREHISTORIC TIMES TO THE PRESENT DAY. Translated from the French of André S. Blum. Edited and enlarged by R. R. TATLOCK. London: Batsford. 21s.

Perhaps the first thing that should be said of this volume is that its title is somewhat misleading, since the contents are so far from being comprehensive that the art of the Far East and of Central America is not touched upon. The somewhat unconvincing excuse given for this omission is that something had to be left out and it was better to disregard several complete cultures rather than, for instance, the art of England or Holland. This alone is enough to show that we have not here that philosophical history of art for which there is so much room. M. Blum's book, despite the claims made for it is, in fact, no more than a textbook, and not a particularly original one at that. The treatment is sketchy and all too often becomes a dull catalogue of names

and dates. The following is a characteristic entry, taken at random. 'Gentile Bellini (1429—1507) is pre-eminently a chronicler of Venetian life. His masterpiece, carried out in 1496, is *The Procession in the Piazza S. Marco* in the Accademia, Venice. Among his other works are the organ shutters in St. Mark's, *The Miracle of the Holy Cross* (plate XLV, 6) in Venice Accademia, and *The Preaching of St. Mark* in the Brera'.

It may be remarked that the foregoing extract is a favourable example of the translator's style. He is not always so lucid. The following sentence, quite apart from the very questionable truth of its general sense, certainly does not succeed in giving a clear definition of the law of frontality. 'This law of frontality itself, by which the body was divided into two equal parts from the top of the head to the fork of the legs, did not result from technical incompetence, but was based on religious tradition'. It seems probable that a person ignorant of Egyptian art would conclude from this sentence that it represented the human figure cleft in two, owing to some obscure religious prejudice. Again, the phrase 'the curious palace of Lagash, disinterred by M. de Sarzec, which was later enlarged by Goudea', might well lead the uninformed to regard the second person as an enterprising French archaeologist or builder.

The one feature which might have rendered this book valuable, namely the numerous illustrations, is robbed of the greater part of its value by the extremely poor reproduction. It is hard to decide whether sculpture or painting suffers most in this way, but it is certain that no one unaquainted with most of the works reproduced, would be able to form the faintest conception of their beauty from these pages. The examples of architecture are but little better. Such photographs as there are, have been badly reproduced, and the fairly numerous drawings are far from being good enough to outweigh the advantages of a good photograph. There is no bibliography.

E. G. WITHYCOMBE.

BISON OF CLAY. By MAX BÉGOUEN. Longman. 1926. 7s. 6d.

To succeed, a romance about prehistory demands exceptional qualities in its author. If it is to be really alive and yet true to the facts, the writer must not only possess a vivid but scientifically schooled imagination, but also a perfect mastery both of the fragmentary data of archaeology and of the ethnographic material that may fill up the gaps in that record. Count Max Bégouen combines all these gifts to a remarkable degree and his 'novel' invests the upper Palaeolithic Age in France with a vividness and reality that no mere descriptive work can hope to attain. V. GORDON CHILDE.

PAPERS OF THE SOCIETY OF MURAL DECORATORS AND PAINTERS IN TEMPERA. Second volume, 1907–1924. Printed for the Society by the Dolphin Press, Brighton. 1925.

The principal archaeological interest of this very useful collection of papers lies in the articles on Minoan mural painting by Mr. Theodore Fyfe and Mr Noel Heaton. The second of these gives a very detailed account of Mr. Heaton's careful analysis of the materials of the paintings at Knossos. The paintings proved to have been executed on fine stucco, averaging $\frac{3}{4}$ inch in thickness. This was apparently applied in two layers. The first, about $\frac{1}{2}$ inch thick, was applied to fill up the inequalities of the wall and give an even surface. The second layer of about $\frac{1}{4}$ inch was apparently put on from day to day in the usual manner with fresco painting, and Mr. Heaton believes

that there is practically no doubt that these mural paintings were executed in true fresco. He also found that the stucco was formed from pure, rich lime and had apparently no sand or marble dust mixed with it, as was done in the case of Roman and medieval frescoes. One of the most interesting facts in this connexion is that an analysis proved that the pigments used were substantially the same as those in use in Roman and medieval times. This is particularly striking in the case of the beautiful blue pigment, which is a silicate of copper and soda and owes its peculiar texture to being in the form of a comparatively coarse powder.

Other papers of historical interest are those on the paintings in the Ajanta Caves, and on Medieval and English mural painting. E. G. WITHYCOMBE.

LONDON AND THE VIKINGS. By R. E. MORTIMER WHEELER, M.C., M.A., D.LIT., F.S.A. London Museum Catalogues: No. 1. Lancaster House, St. James's, S.W.1. 1927. 1s.

In this short text of 55 pages with 28 illustrations the 'general reader' has a masterly sketch of the Viking Age, its history—so far as London is concerned—and its relics. In his introduction Dr Wheeler rightly brings forward the commercial and industrial side of the Northern invaders who were 'a vitalizing force' that 'aroused Saxon London to a partial realization of [her] destiny'; and the story of the Vikings in London is full of dramatic incident and interest. He goes on to discuss local finds of weapons and tools, house-furniture, ornaments and domestic details, indicating their development and dating in the light of modern research. These examples, together with the British Museum guide to Anglo-Saxon Antiquities, will be found of great service to amateurs who are puzzled by casual finds unexplained in older books and needing reference to Scandinavian authorities not easily accessible. Dr Wheeler's eminence guarantees the scholarly character of his work; he treats the evolution of axes, spears and swords in a summary manner, but more elaborate analysis would be out of place, and his account is logical and lucid. A few misprints might be corrected with the reader's pen:—on p. 7, read 'Aethelwerd' and 'vik' (to mark the vowel long); p. 11, 'Ceolwulf'; p. 13, 'activity'; and if (St.) 'Olaf' is so written on following pages, read here also 'Olaf' (Tryggvason). On p. 23 an 'l' has crept into 'Ringerike' and on p. 24 an 'm' into 'Grim's dyke.'" Hesket (not 'Heslet') is the site from which is the axe in Carlisle Museum, mentioned on p. 25; and we beg for 'the Lake of Geneva' (p. 28) as well as 'Kirk' (not St.) Maughold on p. 35. It is hardly certain that the Whalley crosses (p. 40) are standard examples of ninth or tenth century design; some would put them a little later. The Viking Club (p. 55) has long since called itself a Society, to avoid confusion with the Viking Club of oarsmen. Danish and Scandinavian readers—and there will be many—would prefer to see the names of Dr. 'Brogger' and Dr. 'Brondsted' spelt phonetically. But these trifles of a first edition do not detract from the value of a book which is much more than the catalogue of one collection, and ought to be in the hands of all who desire right views on the Viking Age. W. G. COLLINGWOOD.

LAS ANTIGUAS CIVILIZACIÒNES ESMERALDEÑAS. By MAX UHLE. (From *Anales de la Universidad Central*, vol. 38, no. 259). Quito, 1927. pp. 32.

The learned Americanist gives an account of the relations between the early coastal and mountain cultures in Ecuador, where there is a greater difference between

the two climates than elsewhere on the west coast. He says: 'I showed in one of my lectures....that the earliest cultures of the Andine region of Ecuador came from Central American culture'; as in many cases they had to pass over the Ecuador coast, a study of these coastal cultures is necessary for the understanding of the Andine. Summing up the latest discoveries here, 'we may say that in general the immigration of the earliest cultures was by way of the sea only', not north to south along the mountains; its period being the first six centuries of our era. There was an 'avalanche' of 'Mayoid' cultures into the plateau. In the second part he studies in detail the cultural remains of the coastal province of Esmeraldas, which show very great diversity; 'Mayoid' objects are found from the very beginning. Dr Uhle stresses the importance of Ecuador owing to its position near Central America, whose cultures have been 'the origin of all others on the American continent'.

G. C. WHEELER.

PALAEONTOLOGIA SINICA. Series D, volume 1. GEOLOGICAL SURVEY OF CHINA, PEKIN. Fascicle 1: The Cave-deposit at Sha Kuo T'un in Fengtien. By J. G. ANDERSSON. 1923. pp. 43, 12 plates, 20 text-figures. Fascicle 2: Painted stone age pottery from the province of Honan, China. By T. J. ARNE. 1925. pp. 40, 13 plates (six in colour), 63 text-figures. Fascicle 3: The human skeletal remains from the Sha Kuo T'un cave-deposit in comparison with those from Yang Shao Tsun and with recent north China skeletal material. By DAVIDSON BLACK. 1925. pp. 120, 14 plates, 86 tables.

MEMOIRS OF THE GEOLOGICAL SURVEY OF CHINA. Series A, no. 5. Preliminary report on archaeological researches in Kansu. By J. G. ANDERSSON. Pekin. 1925. pp. 56, 12 plates.
[Agents: Kegan Paul, Trench, Trubner and Co., London].

It is very much to be hoped that the present troubles in China will not prevent Dr Andersson from continuing this admirable survey of the prehistoric sites in northern and north-eastern China. By it another and most important extension has been added to the chain that already connects the painted pottery of Europe with that of Elam and India. On many sites in the provinces of Fengtien, Kansu and Honan Dr Andersson has found painted pottery made by a primitive people, many of the designs on which are identical with those found on the painted wares of north-western India, southern Persia, Mesopotamia and southern Turkestan.

Many of the simpler *motifs* on this painted pottery might quite possibly have been invented independently, but this can hardly have been the case with the more complicated designs, such as the so-called 'double-axe' *motif*. This design, which is sometimes picked out in two colours, occurs both on the archaic pottery of China and on the corresponding wares of other countries to the west, arranged either in groups or between lines to form a border.

In form, however, and in the variety of clay employed, the early Chinese pottery differs in some respects from the painted wares of the western countries, although allied to them by the designs it bears. In fact, in each country that was occupied by the culture that produced this early painted ware, those pottery shapes were made that were most suitable to the immediate surroundings and the clay used was that to hand. The shapes of the early Chinese pottery are in the main simple bowls, and dishes, the former of which commonly have tripod legs and are allied in form to the

polypod bowls used by the 'Bell-beaker' folk and found in Spain, Sardinia and other sites in Europe. Some of the larger and taller vessels have well formed loop-handles on either side about half-way down the jar; and the occurrence in the Honan pottery of notched ledge-handles in the same position recalls the exactly similar handles on painted jars of the first Semitic period of Palestine. Ledge-handles are also common on the pottery of predynastic Egypt.

The broad incised strap-handles found on some fragments of pottery from the Chu Chia Ping site, which were presumably paired, bear a strong resemblance to some of the simpler handles of the single-handled ware found in pre-Sargonic graves at Kish. Of particular interest is the fact that some of the vessels were ornamented with simple designs made with a cord, a technique also found in the burials of the south Russian steppes of Austria and other places in Europe, but at present unknown elsewhere in Asia. A peculiar feature of the ancient Chinese pottery is the frequent occurrence of mat designs, a form of ornament that is quite new to us. One would like to suggest that the vessels (which were always hand made) were rolled on a mat when partially dry to give them a more regular shape; but the fact that the legs of some of the bowls bear similar impressions negatives this suggestion.

The clays from which the painted pottery of China was made vary considerably. We note a grey ware which is the natural colour of the clay, a ware with a red surface and grey inside produced by heavy firing, a light red ware and a beige-coloured ware amongst others. The grey ware is most frequently decorated with red, and the red ware in black and dark red, both monochrome and polychrome pottery being found. A white slip was often used and occasionally a red. We notice that Dr Andersson describes pottery that is merely covered with a slip as monochrome. This is misleading and should be corrected in further reports on his excavations.

Though the pottery belongs to various periods, there is no reason to suppose that these were separated by any very great length of time; on the majority of the sites little or no metal was found.

In his contribution to the series, Dr Arne, the distinguished Swedish archaeologist, deals fully with the painted pottery from the province of Honan. He gives us line-drawings of the principal shapes, and his comparisons of the decorative *motifs* with some of the *motifs* on the painted pottery of other countries, Baluchistan, Susa and Anau, are invaluable, especially as he reproduces some of the *motifs* on the painted pottery from the latter countries to emphasize his points. Dr Meyersberg contributes analyses of the slips and materials of some of the painted ware.

The pottery from the province of Honan (the large Yang Shao site and the cave deposits at Sha Kuo T'un) is dated provisionally by Dr Andersson to before 2500 B.C., but from observations on the painted pottery from Mohenjo-Daro in Sind and some of the painted ware discovered by Sir Aurel Stein in northern Baluchistan, I am inclined to regard it as of earlier date. Some very thin ware found in Honan is compared by Dr Andersson with the thin ware of the first period of Susa. It is also comparable, though not in the designs painted upon it, with the thin painted ware found by Mr Hargreaves at Nal in southern Baluchistan; this latter is certainly of earlier date than the pottery of Mohenjo-Daro and approximates very closely to that of the earliest period of Susa, despite divergences in the style and *motifs* of the painted designs.

The Kansu pottery, like the Honan pottery, was associated with implements of bone and stone. Some of it was found in graves and some in village sites. A most

interesting implement found on some of the sites in this province is a sickle of bone with a cutting edge of inset flint flakes. The same type of sickle is found on many Babylonian sites of early date, but with a different curvature and made of pottery; the notched flint-flakes were attached to the holder with bitumen. Very much the same form of sickle has been found at Kahun in Egypt with the flint teeth fastened to a wooden holder with a mixture of Nile mud and glue.

Dr Anderssson suggests that the Kansu and Honan sites have so much in common, especially in their painted pottery, that they may be regarded as contemporaneous and belonging to the same culture. But it must be pointed out that on some of the Kansu pieces fine well shaped vessels with two handles the designs are sometimes much involved; the very elaborate scroll work on some of them approximates in conception to Minoan designs rather than to the simpler linear designs of ancient Babylonia, Persia, Baluchistan and India. I would certainly date the Kansu sites as rather later than those in Honan, despite the fact that on both no metal was found with the painted pottery, except in the higher levels.

Dr Black's volume of the series under review deals satisfactorily with the bones found at Sha Kuo T'un in Fengtien and also at Yang Shao Tsun in Honan. In his report on the bones from the former site, which represent a minimum of forty-five individuals, children and adults, Dr Black, in agreement with Dr Anderssson, states that many of the long bones were fractured at the time of death or shortly afterwards. As Dr Anderssson points out in his contribution on the excavation of the cave, this suggests that its former occupants were either cannibals or that "it was a votive site where religious rites, including the sacrifice of human lives, were performed". The bones in the cave, many of them partially burnt and all in disarray, were associated with fragments of painted pottery similar to and probably contemporaneous with much of the Honan pottery. Tools and implements of stone and bone, including polished stone celts and carefully worked arrowheads, were also fairly common. Finely worked rings of marble and shell of a surprising thinness Dr Anderssson prefers to class as pendants rather than bracelets. Other countries, however, can show equally thin and fragile bracelets; for example, the thin polished flint bracelets of early Egypt. No trace of metal was found in the cave, and the finely worked stone implements show it to be of neolithic date.

One or more of the Kansu graves contained bones that were coloured with a red pigment, a feature met with in the early contracted burials of south Russia, but unknown in the countries of the Near and Middle East. This curious practice, says Dr Black, is also known in certain early historic Chinese burials.

According to Dr Black, the people of the Kansu graves were people of medium height. The muscular development of both sexes was very marked and the general cranial and skeletal features exhibit characters belonging to the Mongoloid division of mankind. The same is apparently true of the remains from the Honan cave, but there the bones were in bad condition and the cranial evidence was very limited. The people of the painted pottery culture, therefore, broadly correspond with the modern northern Chinese. Three skulls of this early pre-metallic period are, however, of a slightly different type distinguished by Dr Black as 'type x'. They do not possess in such a marked degree the peculiar flat face common to the other skulls, and Dr Black suggests that it was from 'type x' people that the proto-Chinese type was derived. We may perhaps see in these skulls the type of head possessed by the

introducers of the painted ware into north China, people who were themselves gradually assimilated after spreading their culture in their new home.

The early painted pottery culture is proved by these researches to have extended over a much vaster area than previously supposed. A comparatively short time ago it was only known as far east as 'Anau in Turkestan' and south as Sumer and Elam. More recently, it has been found to extend into both northern and southern Baluchistan; and the excavations at Mohenjo-Daro in Sind and at Harappa in the Punjab have brought the known limits of the culture still further to the south-east. The careful work of Dr Andersson has now extended its eastward range a distance of roughly 2,500 miles; that is, the painted pottery culture of prehistoric times extended from one end of the continent of Asia to the other, as well as penetrating into Europe.

These four books should be in the hands of every student of archaeology, and they will be especially appreciated by those who are interested in ancient painted wares. They are clearly arranged and exceptionally well got up for monographs of this description. It would, however, have been convenient if a map of northern China had been included in one of them. The printing was done in Stockholm.

Mr Ting and Mr Wong, the Directors of the Geological Survey of China, as well as the authors of the various monographs just reviewed, should be congratulated on the invaluable series of books they are publishing. ERNEST MACKAY.

NORTHUMBRIAN CROSSES OF THE PRE-NORMAN AGE. By W. G. COLLINGWOOD, M.A., F.S.A. Faber and Gwyer. 1927. pp. 196. 30s.

It is a great advantage to readers of this handsome volume that the author is a skilled artist as well as a careful historian. The line-drawings made by himself from a direct study of the originals show clearly details of the design free from irregularities and weatherings and unaffected by differences of light and elevation. Besides this his knowledge and experience enable him to recognize formless fragments and their relative position, so that his familiarity with the inscriptions of the period, and the forms of the monuments and character of the ornament, lead him to suggest a reasonable and convincing restoration of the missing portions.

It is, however, from the historical point of view that the author approaches the subject, helping us to an understanding of what these monuments mean; he has among other things brought to light facts which lead him to believe that there was a considerable abbey at Lancaster and another at Hoddam, though no record of either exists in writing. In other ways his suggestive and thought-provoking book will lead historians to research.

It has long been known that relics of the early British Church are to be found in Cornwall, Wales and Galloway. Mr Collingwood regards the stone of S. Peter the Apostle at Whithorn as imitated from these rude stone pillars and forming the first of a series of Anglian monuments. This stone, which he dates as early eighth century, he would explain as a record of new conditions: 'the old place of S. Martin and S. Ninian is now the place of S. Peter the Apostle, reformed and brought into communion with the Anglo-Roman Church of S. Wilfrid and the Synod of Whitby'.

A short chapter deals with staff-roods, from which the Anglian high cross appears to have developed. Following this, we have a chapter on cross-slabs, their form and decorative treatment, which Mr Collingwood argues must have had an independent development; slab-cutting being a separate art with its own methods and traditions,

in use concurrently with staff-roods and tall crosses throughout the whole pre-Norman age.

We are told about the people among whom these crosses were set up, and how the two races, British and Saxon, ' commingled, created a great nation '—which was to become a mother of the arts. The author gives good reasons for differing from those who regard Northumbria in the eighth century as barbarous, while, on his view, no time and no place could be more favourable for this particular development. Bishop Acca died in 740 ; his work, which ' must have brought to Hexham some skilled craftsmen and must have trained more ', combined the idea of the staff-rood with that of the stone-pillar, developing into the high cross. Such crosses, as was thought by O'Neill of the Irish crosses, were usually polychromatic, and in later stones Mr Collingwood has found ' holes in the centres of the cross-heads in which bits of bright glass must have been set like the jewels of the Ormside cup '. The knowledge of interlacing was already well advanced elsewhere, and contemporary plaits in Italy are given for comparison,—those on the slabs in Ireland and at Hartlepool and Lindisfarne having been dealt with in a previous chapter. With respect to the latter Mr Collingwood regards them as belonging to the close of the ninth century, and not the seventh as thought by Prof. Baldwin Brown.

The chapter on free-armed crosses will probably be of the most popular interest. This deals with the two great crosses of Bewcastle and Ruthwell. Anglian crosses we are told begin with the forms on S. Cuthbert's coffin and his pectoral cross, without the little bosses between the limbs of the latter, and this must have been the type adopted at Ruthwell ; Dr King Hewison having been misled by the damaged offset at the base of the head originally intended to turn the rain from the joint. Bewcastle must have had a head made from a separate stone and dowelled to the shaft, while the *Epistylium* of Spelman, which puzzled Prof. Baldwin Brown, is explained not as an ' impost ' but as the upper limb of such a free-armed cross. The explanation, logical and convincing, fits in with the facts as known, and, taken with Mr Collingwood's sketch (drawn to scale), will probably satisfy the reader that this was indeed the form of the cross.

In proposing dates, he enlists our confidence by working out a provisional scheme for the whole series of Anglian monuments, within which the various pieces fall into place in their respective classes. In doing this he sets forth his reasons fully, taking into consideration the local history as well as details of ornament and of inscriptions, so that the reader is put into a position to weigh the evidence whether he agrees with the conclusion or otherwise. Seven districts or local schools of sculpturing are recognized, and in the Hoddam group are placed Ruthwell and Bewcastle, which therefore should date ' rather late in the eighth century '. In trusting to typology and not to the runes he is in agreement with Dr Bronsted, who however suggests an earlier date than Mr Collingwood finds possible to meet.

From the purely Anglian crosses he passes on to a consideration of the Anglo-Danish and the Anglo-Norse. It is most interesting and instructive to have these monuments thus assembled and presented for comparison. Especially interesting for some of us is the chapter dealing with the free wheel-head, a characteristic shared by Danish and Norse districts and distinguishing the Viking Age crosses from the Anglian. The term ' wheel-head ' is used in its generally accepted sense, but it might have been worth while to have called attention to the standard analysis in *Early Christian Monuments of Scotland* (1903), where Romilly Allen had unfortunately

overlooked the fact that this use had the priority, as for example in Canon Bright's *Early English Church* (1888), and himself defined and figured under this term a different form of cross to which Mr Collingwood now gives the name of ' disc-face ', reserving that of ' wheel-head ' for what Romilly Allen describes as a ' cross with connecting ring '.

It is in this latter sense that the author refers to the Isle of Man as possibly its place of origin, and his accompanying map shows its distribution radiating from the Island to all points of the compass. But it may have reached the Isle of Man from Candida Casa, originating like the Whithorn stone of S. Peter from the Chi-Rho monogram, as argued by Romilly Allen. In this connexion he speaks of the little slab at Maughold with the peculiar inscription in mixed majuscules and minuscules and of course no word-divisions ; but there are difficulties in accepting his very ingenious reading. The inscription, enclosed within a circle completely filled by it, has unfortunately had some letters flaked away at the top ; what remain however are quite legible. The Chi, preceded by a space that would allow of two letters, is followed by another giving room for four, after which are the letters NEITSPLIEPPSDEIINSUL [?], followed by a sign which might stand for ET and met by another word written from the opposite direction—ABPAT. It is a tantalizing puzzle which no doubt will be solved in time.

The connexion between Anglian art and that of the Scottish crosses is touched upon and the general spread of its influence throughout Britain and even on the Continent. Those who will have carefully read the book and considered the arguments and the facts so far presented, will by now have their minds prepared to receive with sympathy a proposition which at first might seem overbold, but is here very modestly set forth ' rather for the reader's consideration than in the hope of his immediate conviction ', namely ' that all monumental art and craft in the north-west of Europe sprang from Northumbria '.

Long, patient and careful study have gone to the making of a work which will be welcomed by all interested in the history and early development of Christianity in our midst ; providing a sure foundation for the correct dating of the whole series of early Christian monuments in the British Isles and leading to an understanding of the relation of scattered members and a view of the whole in a true perspective. The matter is well arranged and Mr Collingwood follows his own precept given in his ' outline of a Philosophy of Art ', that is to say : ' the attempt to cover much ground in few words is an attempt always worth making ', but only a master could succeed as he has done. His clear and unaffected style make pleasant reading, and interest is sustained throughout by unexpected quotations, apt comparisons, and illustrations enlivened by imagination. The index introduces a convenient feature in giving with the sites of the monuments their suggested dates. The type is appropriate and clear. The illustrations are plentiful and exceedingly good ; with such excellent paper they are well shown on the page, avoiding the necessity for stiff plates with the ugliness of their white backs and the nuisance of their constant interruption of the reading. Altogether it is a beautiful and fascinating volume.

P. M. C. KERMODE.

EXCAVATIONS IN NEW FOREST ROMAN POTTERY SITES. By HEYWOOD SUMNER, F.S.A. Chiswick Press. 1927. pp. 123. 12s. 6d.

Here is a book of which it is difficult to speak without appearing extravagant.

Merely to open it is to be charmed by beautiful type, beautifully arranged on excellent paper ; to turn a few pages is to encounter illustrations as eloquent in their significance as they are tasteful in their execution ; and to read is to run grave danger of absolute bewitchment. Enter these enchanted woods, you who dare ; you shall find Mr Sumner pursuing his investigations in surroundings which he finds time to observe thus :—' Deer are inquisitive. They stand and gaze—then bound away—then stop to gaze once more, before finally deciding to avoid the intruder. Ponies ignore intrusion, they are bent on feed ; not so cattle, their curiosity is tiresome. Rabbits and squirrels seem to want to know, but fear knowledge. Owls hoot to each other all day long, wood-peckers yaffle to themselves. Such was my estimate of company in Old Sloden Wood '.

To write like that is to betray a vivid imagination and a most delicate faculty of observation. To these add scholarship and you have a mind perfectly gifted for archaeological research. And Mr Sumner's scholarship is as sound as his draughtsmanship. The result is a little book which bears on every page the marks of a classic. It is a reprint of two pamphlets some years old, with additions ; but its unity is secured by the perfect harmony which the author has imposed upon its various parts. Archaeological reports ought to be works of art, without ceasing to be works of science ; but this they very rarely achieve. When they do, their scientific value is not impaired, but actually enhanced in direct proportion to the intensity of the creative imagination which has worked upon the dry bones of archaeology.

One comment may perhaps be added. The Romano-British potter's hut at Island Thorns (p. 103), if you add a sleeping-platform on the right, symmetrical with that on the left, and indulge in a stone-built hearth, with a chimney, where Mr Sumner found the fireplace, would be exactly like the huts built to this day by itinerant charcoal-burners and bark-peelers among the woods of High Furness. These huts are built to be lived in for a season ; after that, they undergo a slow decay, enviable haunts for children of the neighbourhood, until, collapsing, they leave mere hut-circles behind them. Mr Sumner has sketched in a single vivid sentence the life of ancient potters in such a hut. He has imagined the hut a snug, comfortable sort of place ; and, as usual, his imagination is right. *Experto crede.* R. G. COLLINGWOOD.

THE BEGINNING OF THINGS. *New Year's Day*, by S. H. HOOKE. *Corn from Egypt*, by M. GOMPERTZ. *The Golden Age*, by H. J. MASSINGHAM. Gerald Howe. 1927. 2s. 6d. each.

These little books of 88 pages each, edited by Prof. Elliot Smith, may be expected to fall in with his views, but in these three out of a dozen, the views are not allowed to dominate, and the authors deal with matters impartially. The account of the calendar describes its gradual settlement in various countries. It is assumed that there is a difficulty in finding the length of the year, but anyone can do that easily by the count of days between like directions of the azimuth of the sunset at about the equinox. It is by no means certain, since the discoveries at Ur, that facts ' point clearly to the priority of Egyptian civilization '. It is said that a calendar presupposes . . . . ' language, or script, a numeral system, mechanical means of measuring time, units of measurement and writing materials '. This sounds formidable, but scarcely any of these items were used for the clog almanacs, notched on a piece of wood, which were the popular time keepers in the Middle Ages. Some notice should be taken of the

Italic register of years, by the priest driving a nail into the temple doorpost. A mention is needed of the many lengths of week in different countries, from 4 up to 20. The book by Mr Colson on the week, which appeared last year, should certainly be quoted and relied on as an authority.

Dr Gompertz on ' Corn from Egypt ' concludes that the cereals are Asiatic in origin, and that barley preceded emmer wheat in Egypt, as that preceded modern wheat. The calendar comes in again, and ' it is obvious that such a complicated system as the calendar year with its leap day once in four . . . could not have arisen independently in different parts of the earth '. Why not ? A couple of stones for direction marks, and a stick to notch the days, are all that anyone needs to settle this matter in a few years. A little more familiarity with things Egyptian would have saved some slips, which no doubt the author will correct in future.

The Golden Age is a dream of Arcadia, when all were virtuous, and the wickedness of wealth had not yet arisen. ' Moral and social inequality was introduced into the world by property in land, the consequence of the invention of agriculture '. But how about Sheykh Abraham, with flocks and herds and 318 followers, wandering up and down without even land for a tomb, yet with plenty of social inequality ? This Rousseauism is nonsense. History is simplified out of recognition when we read : ' It is fairly clear that agriculture was the invention of one man who virtually established . . . theology and the kingship '. Certainly rule and religion flourished among those who knew nothing of agriculture. The truth is that the Golden Age is easy enough when there is plenty of elbow room, but vanishes when the pressure of population drives. If the animals had any voice in the matter they would tell a bloody tale of the horrors of a hunting people, who depend upon destruction. The first breach of innocence was when a wicked protozoon first devoured a sun-bred vegetable, as Heron Allen remarked. It is no use to bleat for paradise ; the candle of civilization is worth the tallow.

FLINDERS PETRIE.

ARTHUR OF BRITAIN. By E. K. CHAMBERS. Sidgwick and Jackson. 1927. pp. iv, 299. 10s. 6d.

CELTIC MYTH AND ARTHURIAN ROMANCE. By ROGER SHERMAN LOOMIS. New York : Columbia University Press. London : Humphrey Milford. 1927. pp. xii, 370 ; with two illustrations. $6.

Sir Edmund Chambers begins with a scholarly account of the earlier authors who touched on the matter of King Arthur, from Gildas to Geoffrey of Monmouth, and describes how Geoffrey's work won acceptance in the twelfth century, followed by the great body of romances. He then discusses ' the historicity of Arthur ', in which he does not abandon faith ; concluding that a real war-leader operated south of the Thames, but not wherever his name has been attached by romantic fancy and local patriotism to outlying places. Chapter VII sketches some of the theories connecting the legends with various poems of Celtic mythology. ' It is not to be denied ', he says, ' that there may be points of contact between the Arthurian and Irish stories '; but he also gives a place to German and Scandinavian folklore where it offers analogies in details. He adds full extracts from the Latin originals of early Gallic chronicles and others down to the fourteenth century, ending with a bibliography which makes a reader thankful for the brevity of this lucid handbook.

As to the main points he makes, there can be little dispute. Perhaps he attributes

too much to the unaided ingenuity of ' the learned and unscrupulous old canon of St. George's in Oxford, Geoffrey of Monmouth '. Perhaps he might have studied a little further the very doubtful value of ' Nennius ' as to such names as Urien of Rheged (p. 61) and considered the Welsh-Viking pedigrees analysed by Mr G. Peredur Jones in *Y Cymmrodor* (vol. xxxv, 1925). Perhaps it is too strong to say (p. 98), ' Historically, the combatants at Ardderyd . . . ' as if Skene had settled the business of that mysterious battle. But these are inessential ; the book is very carefully written and it is a useful manual of a famous subject.

In passing, he twits Sir John Rhys with using bits of Malory as materials for analysis of far-away folklore. This is just what Professor Loomis does, and with conviction. He takes up the question where Rhys left it and proceeds in a similar method ; but he gives a new turn to the whole investigation by putting the weight on Irish rather than Welsh origins. He points out, what is often forgotten, that Britain was always susceptible to Irish influences ; from time to time between the Roman age and the Norman there was importation of Irish motives and this, we think, might be strengthened by considering the history of ornament. But these imports did not affect Wales so much as Devon and Cornwall, and thence Brittany and the French. In Wales, the parallel folklore never crystallized into Arthurian romance until comparatively late times, when Rhys ab Tewdwr (1077) brought in the Round Table ready-made ; when the Welsh minstrel Bleheris told stories of Breton form, and the *Mabinogion* book took shape, not before the twelfth century. Therefore, he argues, the sources of Arthurian legend are to be found by following such clues as are available from Brittany back to Dumnonia and thence to pagan Ireland.

Now, in Ireland, the Ulster cycle of Cuchullain is known ; but there must have been also a Munster cycle of Curoi mac Daire, in which Cuchullain was only ' little Curoi ', a secondary figure. The Dumnonians, he infers, received traditions from Munster ; to them Curoi was protagonist, and his figure is to be seen, *mutatis mutandis*, in the Arthurian knights. All the figures of romance are traced back to Irish mythology, not excepting Merlin, whom Sir E. K. Chambers thinks invented by Geoffrey, and Lancelot, who has been usually regarded as a late creation. The only exception is Arthur himself. To make out this view the author throws over phonology and trusts to resemblance of names, often rather slight and, like Rhys, he explains away the difficulties by supposing mistranscription, thumbed manuscript, and so forth. But he rests more strongly on resemblances of character and incidents. In following him we are conscious of leaps in the dark, though no doubt the steps in his argument are not impracticable to a wanderer in dreamland.

The later part of his book is occupied with the Grail. It leads to the surprising conclusion that in this sacramental mystery, so sentimental as we have it, and so far removed from the grosser part of human nature, we are to see reminiscences of primitive initiation-rites, postulated as existing in pagan Ireland and referred back through late Gaelic speculation on the genesis of races to Greece. Nothing seems to be offered to prove that the medieval romances were conscious of the curious character of their sources ; one would suppose that they did not know what was meant, a thousand years earlier, by the symbols. And yet Professor Loomis suggests that the late eleventh-century cross-designers intended sun and moon worship by their patterns (p. 43) ; whereas the student of art-history can hardly help believing that all such motives had by then become merely the commonplaces of ornament.

Both our authors accept Arthur's historical reality. They base it on ' Nennius

of the ninth century ' and on Gildas' mention of Mount Badon. But Gildas does not name Arthur. The late Rev. D. H. Haigh, in his attempt to blend legends into history, explained the silence as animosity on the part of Gildas towards the slayer of Hoel ; but Gildas names many of whom he has no good to say. Excepting Nennius and *Annales Cambriae*, equally hazy, nothing is heard of Arthur before the Breton *Life of St. Goeznovius*, which claims to be of 1019 but is not a firmly fixed point. In fact, we are not sure of anything about Arthur until we come to the Modena carving, which Professor Loomis gives as a frontispiece ; and he makes out a good case for dating it 1099–1100 and seeing in it the result of Alan of Brittany's visit to Italy in 1096. By that time, five hundred years after the period of any historic Arthur, Arthurian romance had developed ; and it must be noted that it could not have developed much before the beginning of the eleventh century, because the earliest form of the romance, in Geoffrey of Monmouth, describes the battles of Athelstan as Arthur's.

So far we are with the doubters ; but we said just now that for Arthur himself no original could be found in Celtic mythology. Sir John Rhys tried his best in that search ; Professor Loomis gives it up and says, ' There is nothing in the legends to identify him with a plowman or a bear, divine or otherwise '. If Arthur was not a god, whence did he come, unless as a tradition, the folk-memory of a real hero, around whose honoured name clustered the confused memories of the earlier world ?

Written record has been searched and analysed so fully that we need not try to brew the dregs again. What is left to do ? We are in the position some of us remember when the story of Hadrian's Wall was thought complete and the page turned down with a scanty and fallacious paragraph. Nobody knew, forty years ago, what was to be discovered by digging. For Arthur, we must wait the results of exploration at post-Roman sites ; and that exploration is going on. It may possibly reveal a period and an area of fighting between Britons and Saxons, so as to give support to the legend ; or it may make the belief finally untenable. Meanwhile there is little use in raking over the chronicles or dreaming at Cadbury and Ashbury. Some day there will be facts to discuss.

W. G. COLLINGWOOD.

THE POTTERY FROM THE LONG BARROW AT WEST KENNET, WILTS. Compiled by M. E. CUNNINGTON. Printed for private circulation, by George Simpson and Co., Devizes. 1927. pp. 19 and 13 plates.

We are all deeply indebted to Mrs Cunnington for making available these illustrations and notes on the West Kennet pottery. The Long Barrow in which it was found in 1859 is one of the best known examples of its kind, and the discovery of pottery in one of the burial-chambers was an unusual incident. No adequate account of the pottery has been published during the 68 years which have elapsed since Dr Thurnam found it.

The text is confined to six pages of introduction and an objective description of the fragments themselves. These are illustrated by half-tone illustrations which unfortunately are of very inferior quality. The original photographs were evidently very poor, since plate IX (from a British Museum photograph) is much better than the rest. Such deficiencies, moreover, cannot be made good by brush-work upon the print before the block is made from it ; brush-work of this kind should never be permitted in scientific work ; it is always a sign of photographic incompetence. The plates are further disfigured by the ugly and unnecessary black lines in which block-makers see fit to frame their productions ; and by the Museum numbers (*e.g.* x. 94)

in large white figures, which appear on each fragment. Could not this have been written on the inner (unornamented) face ? We emphasize these points because the illustrations are here admittedly the prime object of the undertaking.

The pottery consists of between 250 and 300 fragments, of which 15 are in the British Museum. It is ' of two distinct types ; the greater number are pieces of large vessels of thick coarse ware, the others are undoubted beaker pottery ; in addition to these there are a few exceptional pieces (see figs. 13, 15, 69, 73–5, 112–3) '. With these remarks we entirely agree ; there could indeed be no two opinions about the beaker fragments ; and the deposit seems clearly to have been intact when Thurnam found it. (Mrs Cunnington makes this quite clear, and the reasons why Thurnam was puzzled by the implications involved). Of the exceptional pieces, fig. 69 seems to us (so far as we can judge from the blurred reproduction) to be identical with some fragments found at Woodhenge and ornamented with a grooved chevron. We cannot agree that ' the vessel represented by figs. 81 and 112 is, probably, also a Bronze Age type ', or that it would have appeared perfectly normal if it had been found at All Cannings Cross. There is a discrepancy between the British Museum photograph (fig. 81) and the restored drawing (fig. 112). If both are part of the same vessel, fig. 112 should have, below the lip, the ' finger-nail ' ornament which is plainly visible on the photograph. There is, too, no scale to figs. 112 and 113. A small visual scale should have been inserted in each plate—another omission for which the photographer is partly to blame.

LES IBÉRO-MASTIÈNES EN GAULE ET TARTESSOS EN AQUITAINE. Par L. Guignard (Gaulois). Autun : Guignard-Nourry. 1926. pp. 171, with 3 maps.

M. Guignard's text is that there was a displacement of traditions as well as of peoples in the Iberian peninsula in the second century B.C., when the Lusitanians of Galicia were transplanted by the Romans to Alemtejo and the Algarve ; thus Erythia and the land of Geryon, brought to the Algarve at that time by the Cynetes with their other traditions, belong properly to Galicia and the Cantabrian coast. The Gadir associated with Erythia is consequently not the Cadiz Gadir but another, and the confusion between the two has brought the Erythia tradition eastwards again from the Algarve along the coast of the Gulf of Cadiz. The Cynetes having been a Cantabrian tribe before their conquest by the Romans, the line of tribes given by Herodorus of Heraclea—Cynetes, Gletes, Tartessians, Elbysines, Mastians and Celcians (Calpians) —may be ' dressed ' on the Cynetes, so that these tribes lie along the Cantabrian Mountains and the Pyrenees, and touch the Rhone on the east. Hence the Tartessians, and Tartessus, are in Aquitaine. The usual alignment along the southern and Mediterranean coasts of Spain, apparently justified by the fragment from Hecataeus which places the Mastians ' near the Pillars of Hercules ', is wrong because two quite different groups of Mastians have been confused, one lying north of the Pyrenees, the other in the south of Spain. Hence Ibero-Mastians in Gaul, to be distinguished from Eleo-Mastians in Africa who become Phoenico-Mastians in Spain. Both the Eleo-Mastians and the Phoenico-Mastians set up a Tarshish, and the two settlements have been confused with Tartessus.

Such is M. Guignard's text, not unreasonable and not, one would think, unlimited in scope. Nevertheless it takes M. Guignard a very long way indeed, or rather it

brings him round by very long ways indeed from the ultimate origins in the Danubian-Balkan focus. To the present reviewer he seems to prove a great deal too much for his text, and the evidence—from homonyms attached to widely distant places, from the similarity of radicals in place-names, from archaeological correspondences which have no apparent connexion with the homonyms, and from modern skull measurements which must certainly be ruled out as evidence—makes up a hypothetical reconstruction no doubt, but certainly not a coherent logical argument.

The specific question of a Tartessus in Aquitaine and the squaring of this conception with the texts is rather a different matter. There is a great deal of evidence which must either be glossed over or rejected if a Baetic Tartessus is to be accepted, and the discussion of an Aquitanian Tartessus is well suited to bring this out. But again M. Guignard seems to try to prove too much. That a Baetic Tartessus is inconsistent with the periplus of Ephorus most people will agree ; it may be that an Aquitanian Tartessus fits that periplus ; what seems certain is that an Aquitanian Tartessus is quite inconsistent with the Ora Maritima of Avienus, and M. Guignard's attempts to match the two only make this more evident. M. Guignard in fact merely complicates matters by bringing forward a new Tartessus which is still open to the objection that its river brings down no tin (it is amusing to see that he gets over this difficulty in exactly the same way as Professor Schulten does for the Baetic Tartessus) ; a new Erythia for which there is no island available as candidate—moreover one would have to go east from Galicia (*i.e.* from the tin and from the likelihood of a neighbouring Gadir) before there would be even the possibility of finding an island joined by alluviation to the mainland during the historical period ; a new Gadir which perishes centuries before either of the periploi, yet leaves a tradition strong enough to enable it to travel south with the Cynetes and bring with it a Tartessus which somehow, although originally two days distant by sea, becomes settled on a neighbouring location, defined by tradition, as reported by Strabo, with remarkable precision ; and so on. It is all very unconvincing, and how loose the statement is one can see by noting the easy way in which the Cynetes, whom Strabo does not mention, slip in above with the Lusitanians whom he does. There is a nationalism in the tone of the writing, too, which suggests that one day the Tartessus question may have to be referred to the League of Nations. In the meantime M. Guignard ought in fairness to address his arguments to Professor Schulten's case, rather than to the case put forward by the older historical school. R. AITKEN.

CIVILITZACIO MEGALITICA A CATALUNYA : Contribucio al seu Estudi. Per J. SERRA VILARÓ. Solsona. 1927. pp. 351, and 470 figures.

This book must be accepted as a necessary companion of Dr Luis Pericot's *Civilización Megalítica Catalana* (Barcelona, 1925), for although the title of both works suggests a definitive survey of the Catalan megaliths, in reality each is incomplete without the other, Dr Pericot, of course, being unable to include this remarkable regional study by Mosen Serra Vilaró, still unpublished when he wrote, and Serra Vilaró in his turn seeing no reason to repeat Pericot's account of the rest of the Catalan megaliths. Both books, however, are admirable, and the objection that there are two of them instead of one is of small account. Mosen Serra Villaró's book therefore, like Pericot's, is assured of a warm welcome—even though he has written it in Catalan, a language that is hardly well-chosen as a medium whereby to attract wide-spread attention.

Serra Vilaró's work is certainly a notable achievement in that it is founded entirely upon the author's own researches, and is, in fact, a record of the excavation by him of over a hundred sites in the neighbourhood of Solsona. The rich harvest of archaeological material that has rewarded this tireless field-worker is now installed in the Musæum Archæologicum Diœcesanum at Solsona, over which Mosen Serra Vilaró presides ; and thanks to his labours it now constitutes, as Dr Pericot has rightly observed, one of the few really notable collections of neolithic and aeneolithic material in western Europe. Much, therefore, is to be expected of the book describing the results of Mosen Serra's long series of excavations, and it is characteristic of the author that he has spared himself no pains in order to present his matter in a workmanlike fashion. It was difficult and unnecessary to maintain the luxurious standard of the same author's *Escornalbou Prehistòrich* with its sumptuous photogravures ; but, if the present work is dressed more modestly, at any rate, plans, diagrams, and drawings are plentiful and excellent ; and, though perhaps not all of the photographs deserved reproduction, there is a liberal number of half-tone pictures to complete a total of no less than 470 illustrations. Moreover, the printing and the quality of the paper are alike admirable.

The greater part of the text is, of course, descriptive, but the author has certain decided views that he expresses succinctly in a few introductory pages. It is wrong, he maintains, to distinguish (as do Professor Bosch Gimpera and his colleagues) between a megalithic culture and a cist-culture, and for Serra Vilaró Bosch's aeneolithic 'cists' are neolithic ' megaliths '. But as nobody yet has defined a cist to his satisfaction, he drops the term as a tomb-category, and presents an honest, but excessively cumbrous, system of five classes of his own defining. This, be it said, is the proper and scientific procedure in regional survey ; but its effect is inevitably that it adds to the existing confusion. And—on this same subject of megalithic classification and nomenclature —it must be regretfully recorded that Serra Vilaró stands forth as champion of the term ' *hemi-* or *semi-dolmen* ', an abominable hybrid that should be ruthlessly expunged, even if the name were an archaeologically accurate description of the structures concerned.

It is interesting to note that Mosen Serra Vilaró contests Dr Pericot's statement that there are no carvings on the Catalan megaliths, though the examples our author adduces are not wholly convincing. In general, however, his tombs and their contents, rich and varied though these be, have not presented any notable peculiarities ; but the trepanned skull from Clarà, here very well published, will be new to most students ; and one of the special interests of the tomb-furniture is the frequent occurrence of the little trapezoidal flints that are all excellently illustrated in this most praiseworthy book.

T. D. Kendrick.

DIE STRASSE VON GIBRALTAR. Von Dr Otto Jessen mit einem Beitrag von Dr A. Schulten, mit 23 textbildern, 16 tafeln und 2 karten. Berlin : Deitrich Reimer. 1927. pp. 294. 18 marks.

In this suggestive and well-documented book Dr Jessen discusses the Straits of Gibraltar under every aspect from the geological and hydrographical to the political and strategical, and for all periods from their birth at the beginning of the Pliocene down to the signature of the Statute of Tangier in 1923. He does not indeed follow Staub in seeing the Straits already foreshadowed in the relatively unimportant arm of the sea into which Tethys narrowed westwards, nor does he point out that the two

main tectonic directions at the Straits appear first in the south-west of Europe long before the commencement of the Alpine movements ; but for the tertiary portion of the embryonic phase, and then from the Pliocene onwards, the record is as complete as limitations of space will permit. It is of course not uniform in value, but the average is reasonably high.

Among the geological questions discussed that of the ' land-bridge ' at the western end of the Mediterranean has the widest implications in other sciences. No one will be surprised, of course, to read that from the end of the Oligocene onwards there was no unbroken land connexion between the European and African continents proper, the area lying between the Sierra Morena and the Moroccan Meseta (now divided between the continents by the Straits of Gibraltar) having belonged first to the African side, while the north Baetic Channel remained open, and then to the European, while the Atlantic communicated with the Mediterranean by the south Riffian Strait (now followed by the railway from Rabat to the Algerian frontier). That is the accepted sequence at least, but Dr Jessen's date for the closing of the former channel implies an overlap in time of the two channels, and a consequent island-phase for the area mentioned, for which he gives no authority. Perhaps he has merely made a slip.

The surprise to most people will be to learn that, according to the evidence of the fossil fauna, the opening at Gibraltar was closed again at the culmination in early pleistocene time of the positive epirogenetic movement which began late in the pliocene epoch. If this is established, the fact is important, not merely in itself, but also as indicating the amplitude of the movements in the early Pleistocene. The submarine sill which crosses the entrance to the Straits between Tangier and Bolonia is now covered by water to a depth of 320 metres and the sea-floor falls steeply away from the sill on both sides ; if the sill was above the surface at the end of the upward movement, and if the marine conglomerates which marked the sea-level at the beginning of the movement are correctly identified at 233 metres above the present sea-level, the total rise of the land during this epirogenetic movement must have been at least 550 metres. The calculation depends of course on the unfounded assumption that the relative position of the sill with respect to the mainland has not altered ; moreover the marine conglomerate is not identified beyond dispute above 140 metres ; still, even discounted in this way, the figures indicate movements of great amplitude with correspondingly large changes in the configuration of the straits.

Readers of Dr Jessen's earlier work on south-west Andalusia will probably find the movements now described hard to reconcile with those which he has described before. For an area further west, Dr Jessen has already thrown doubt on his earlier results by invoking (*Zeitschrift der Gesellschaft f. Erdkunde zu Berlin*, 1925), a new negative movement (previously rejected by himself) lasting until the beginning of the Christian era, in the later stages of which the ruins of Tartessus were carried down possibly out of reach of the spade. He must not be surprised if his readers complain at being left to reconcile such discrepancies as best they can.

Professor Schulten's catalogue of references to the Straits by classical writers is exhaustive and should be found convenient. The three Calpes—Calpe-Kirpe, Calpe-Ifach and Calpe-Gibraltar—form in his view a derived sequence in that order.

Surely Professor Schulten is unfair to Carpenter in his second footnote on p. 195. In the discussion of Calpe-Ifach=Hemeroskopeium in *The Greeks in Spain* Carpenter had already (p. 120) dealt with the point about Sertorius raised by Professor Schulten.

R. AITKEN.

# REVIEWS

HOMER'S ITHACA: A VINDICATION of TRADITION. By Sir Rennell Rodd. Edward Arnold and Co. 1927. pp. 160. 6s.

This book, written in refutation of Dörpfeld's theory that the Ithaka of Homer is Leukas or Santa Maura, will be welcome to those interested for two reasons, first, because so little has been written on the subject in this country, and secondly, because it presents the result of a much needed autopsy of Thiáki by one who has intimate knowledge of the west of Greece.

Some years ago a scholar affirmed that no Ithakan site in the *Odyssey* could be identified, and a participant in the controversy thereupon suggested that a formal statement might be made afresh of the weak points in the case for Thiáki, but none has appeared. Instead, we have the present treatise, the author of which is satisfied that ' the poet refers to natural features which can be precisely identified, and to places which there is no difficulty in identifying '.

In a short statement it was not possible for the author to include all the points that have arisen in the copious literature of ' Leukas-Ithaka ', but the chief issues are dealt with clearly and fairly. The discussion of the famous passage early in the ninth *Odyssey* is particularly good, and there is an elucidation, of greater value than the author's modesty will admit, of the well known question put to newcomers to Ithaka.

The points to which objection will be taken by many are the assumed lateness of the Catalogue of the Ships in the *Iliad*, and the whereabouts of Dulichium. For the former Sir Rennell follows Dr Leaf in *Homer and History*, but the new and startling propositions regarding the Homeric geography contained in that book have all been fairly met and disposed of, and Mr Allen's work on the Catalogue, supplemented by a very valuable paper by Mr M. S. Thompson in *Liverpool Annals*, vol. iv, has satisfied many that the evil character affixed to the old Gazetteer by German criticism is really groundless. For Dulichium, Sir Rennell only mentions, apparently as deserving no more than mention, the view that it is Leukas. But there is much to be said for it, and mu h has been said. It was propounded by Bunbury, elaborated by Mr Allen, and had the adhesion of the late Dr Bury. There is really no conflict on the point between the *Odyssey* and the *Iliad*. Sir Rennell appears to endorse the erroneous view that Homer makes Dulichium part of the Ithakan realm. And again, he accepts Akastos as king of Dulichium. But there is good reason for believing that he is a man of straw, like the Kastor of another feigned tale in the poem.

But the book is very acceptable. The Homeric geography has become of the first importance for Greek prehistory, and it is refreshing to find a competent and impartial observer asserting its accuracy, arguing from that to personal knowledge on the poet's part, and even venturing to accept as well founded the ancient tradition that Homer had sojourned in Ithaka. With many other authorities in these days he regards tradition as ' one of the most valuable of historic guides'. A. Shewan.

MUSEUMS AND NATIONAL LIFE. By Sir Frederic George Kenyon, M.A., D.LITT., G.B.E., K.C.B., Director and Chief Librarian, British Museum. The Romanes Lecture delivered in the Sheldonian Theatre, 17 June 1927. Oxford: the Clarendon Press. 2s.

Seldom perhaps has an authoritative pronouncement on museums been made at a more opportune time than that contained in Sir Frederic Kenyon's Romanes lecture,

delivered at Oxford. It came at the psychological moment, which marked not only the investigations of the Carnegie Trustees into provincial museums, but also the beginning of the Royal Commission on national museums and art galleries of England and Scotland. Doubtless both these bodies will study the lecture and mark well its contents.

Not only was the moment well chosen, but the man also, for in Sir Frederic Kenyon we have not a specialist engaged in a single line of studious investigation, but a wide-minded administrator who claims with all authority to have been engaged for years in facilitating the work of others, rather than in conducting research of his own. He has been the means by which students have attained their results, and his outlook is therefore detached and unencumbered by anything save the general advancement of museum work. He stands in the museum gallery, an unseen spectator, and notes the trend of public taste. He recognises the claim of the student, as well as that of the mere visitor who comes to the museum to gratify his intellectual curiosity, and it must be said that he has at the British Museum succeeded admirably in serving these two masters.

As a result of personal observation he has come to very definite conclusions; he recognises that 'collecting' is a national habit, and notes, what is so seldom realized by the public, that most if not all of our English museums owe their existence in the first place to individual collections, rather than to public enterprise. He notes, as well he may, the growing masses of material absorbed into museums, and the gradual digestion that follows as that material is dealt with. And having done this he propounds two crucial questions: 'What is the proper function of the Museum in National Life? What can the Museum do for the community; and if this function is to be performed what must the community do for the Museum'? His answer to the main question is that the museum must serve the student and the non-specialist, 'from an archbishop to an inquisitive boy'; how well qualified with so comprehensive a code.

He elaborates the functions of the museum from every point of view, and concludes that museums exist to supply the 'human need of quality in life as well as quantity'; that they appeal to and stimulate the sense of beauty, the sense of curiosity, and the sense of continuity; and that their ultimate purpose is to help the Nation 'to save its soul'.

There is no doubt but that the public at large has of late years responded to the appeal of the museum; and this response is without doubt the first fruits of the national expenditure on education. But the collective attitude of public bodies towards museums lags behind; the country does not realize the services rendered by its museums, and it is still content to rely upon private initiative, rather than give full official recognition. How differently this problem has been handled by France, where the great Napoleon was accompanied to Egypt [and elsewhere] by his staff of savants, who thus laid the foundations of the magnificent museums of that country.

Once the public is awake to the value of museums, the demand grows for more facilities, longer hours of opening, guide lectures, and official publications. Are the governing bodies still to remain inert, and still rely upon private benefactions to keep their museums efficient, as they have done in the past? They must realize, and that soon, that education is not merely an affair of schools and universities for the young, but a life-long process, in which the museum plays a most important part in a healthy national life.

FRANK STEVENS.

# REVIEWS

THE NORTHERN HEGAZ ; ARABIA DESERTA. By Alois Musil. American Geographical Society, Oriental Studies and Explorations, vols. 1 and 2. New York. 1926, 1927.

In these two volumes the author, already well known as a traveller in Arabia, gives a record of further journeys undertaken between the years 1909 and 1915 ; the work of exploration was financed by the Czech Academy of Sciences and Arts, the publication of its results by the American Geographical Society. Three more volumes are in preparation.

Dr Musil describes his work as a topographical itinerary, but it is much more than that. An itinerary it is, recorded with a meticulous precision which takes account of every minute ; the country through which the writer went is described in a manner eminently readable and interesting. It is not inspired, perhaps, but it is accurate without being dull and gives an excellent idea of the desert. What stands out most in the book, both in matter and in style, is the account of the desert tribes and of the individual tribesmen. Dr Musil's long sojourn in Arabia and his friendship with some of the leading sheikhs enables him to speak with authority on politics and on personalities, but he speaks also with sympathy and understanding and his picture is as vivid as it is sane ; his records of talks on the march or under the black tents at night, his sketches of tribal history and of tribal chiefs, are romantic because they are so obviously true and not because they are imaginative. There is no idealizing here. 'Awde abu Tajeh, the Roland of writers more picturesque, tears the heart out of a wounded enemy and eats it, and we have the real Bedouin. An-Nuri eben Sa'lan appears as he is, attractive but shifty, cruel, and with no concern but for his own interests, frank, generous and dirty. To our knowledge of the Arab this book is a remarkable contribution.

For the archaeologist it is of unequal value. On the one hand there are the descriptions of ancient sites, and here he is likely to be disappointed. The desert is not particularly rich in ancient remains, but what there are are treated by Musil very summarily. Generally there is little or no account of the ruins and nothing to establish their identity ; it is tantalizing to read that ' we passed within a mile or so of such and such a Roman fort '—and no more. On the other hand the mention of an old building may be accompanied by a footnote containing a list of references to it by Arab writers which is of very real interest. In two appendices we get compilations of references in Assyrian and classical texts which amount to an ancient history of the desert, and for this the author deserves hearty thanks. The theoretical side of Musil's archaeology is less satisfactory. His views on the identification of biblical sites are unorthodox, and for all his knowledge of the country are far from being convincing. He states his own views without attempting to confute those of others, for which just as much can be and has been said, and he is by no means critical in his choice of arguments ; thus his startling thesis that Kadesh Barnea is Petra, this entailing a new route for the Exodus, is supported by the assumption that the ' Sea of Reeds ' is the Red Sea as we know it—surely an exploded belief; and that the Exodus took place in the fifteenth century B.C.—which many would disallow; and by the fact that Petra lay outside the ' Sur ' or line of Egyptian outposts, which is equally true of other sites with which Kadesh Barnea has been identified.

The maps are excellent. Working single-handed over a very large area the author was obliged to rely in part on native reports, but these he has checked with all possible care, and the main features are based on his own triangulations ; while

therefore they cannot claim to be the last word in Arabian topography they do supply an invaluable addition to it. C. Leonard Woolley.

THE PAINTED POTTERY OF SUSA. By C. Leonard Woolley. Journ. Royal Asiatic Society, 1928.

Susa is generally taken as the starting point for the study of an immense and profoundly important province of prehistoric culture, extending from the Euphrates to the Indus and Turkestan. The old Elamite capital, situated as it is on the border-land between plain and plateau, is well adapted to provide a key to the interrelations of two of the world's oldest civilizations. But unfortunately the record of the excavations is atrociously bad. It must be remembered that the Germans at Assur and then Campbell Thompson at Abu-Shahrein were the first excavators in Mesopotamia to look at anything beside artistic and literary documents. The two oldest settlements were alleged to be each characterized by fine painted wares, described as the first and second styles respectively. The first style is known almost exclusively from funerary vases found in a cemetery attributed to Susa I; it exhibits most suggestive similarities to the oldest 'prehistoric' pottery unearthed far beneath the dynastic ruins of Ur and its suburb al-'Ubaid and to sherds from Seistan and even India. According to a recent work by De Frankfort the first Susian pottery represents some of the earliest efforts of mankind at pot-making and is the oldest member of the group. The second style on the other hand marks, on the same authority, a break with the old traditions only explicable in ethnic terms by the intrusion of new folk from North Syria.

Now the excavator of Ur argues that the two styles not only belong to the same school, but are actually contemporary, and both posterior to the prehistoric wares of Sumer. The aesthetic differences between the first and second styles are dismissed as too 'subjective' or explained as 'archaisms', the technical ones would result from the contrast between funerary and domestic ware. In any case Frankfort's contention that the first style vases were the first products of a new craft are shown to be untenable. Then Woolley points out that in the 'section' of the mound given by de Morgan the graves containing first style vases are depicted not in the ground on which the first settlement stood, but on the same level as its ruins. Hence, *if de Morgan's section is to be taken quite literally*, the graves are dug in the ground on which Susa is stood and belong to that city, in whose ruins the vases of the second style were found. So the two styles co-existed. Moreover Susa II is dated to the first half of the third millennium; the prehistoric village near Ur is at least five hundred years older. Hence the prehistoric painted pottery and the civilization it represents spread from Sumer to the highlands, not *vice versa*.

Revolutionary though Mr Woolley's thesis be, it certainly removes some difficulties and might be supported out of De Frankfort's own mouth [two sherds of his 'Susa II' style among the—'late Susa I'—material from Seistan and a pot of 'Susa I' form from the 'Susa II' cemetery of Jemdet Nasr near Kish]. Yet it is by no means such an universal panacea as its author claims. However much we may distrust stylistic criteria, a very real contrast exists between the pottery from the graves and that from the second settlement at Susa in the treatment of animal forms. Can deliberate archaism on the part of the painters of funerary vases really explain these as Woolley suggests? Only if we assume a stage of industrial specialization not warranted by the remaining grave-goods. The same village potter

will not paint a cubist and an impressionist goat. Finally recent excavations in a new quarter at the mound of Susa have brought to light a cemetery really containing Second Style vases while sherds of the First Style were found in hut ruins, not tombs, at a lower level, (*Rev. Arch.*, 1926, xxiii, p. 16). In copying he might reproduce a pair of triangles, but not a pair of triangles that vividly simulate a goat, as they do on well executed first style vases. This and other difficulties have still to be surmounted before the theory of contemporaneity can be readily accepted. But in any case Mr Woolley's analysis is a salutary warning against too facile an acceptance of Dr Frankfort's brilliant deductions and yet another sad reminder of the uselessness of the reports furnished by the Délégation en Perse. V. G. CHILDE.

THE STORY OF MYTHS. E. E. KELLETT. Kegan, Paul, Trench, Trubner and Co. 1927. pp. 275. 7s. 6d.

We gather from the introduction that this book is intended mainly for students in training colleges. The hope is expressed there that it will induce students to read more widely in the subject. It seems a pity, therefore, that the book contains no classified bibliography for the student who is inspired by it to go on studying the problem. It is evidently based on wide reading, but it seems to have been written under the influence of the school which was still inclined to see in all folk-tales a nature-myth. The reference to the story of Cain and Abel omits any reference to its undoubted foundation in the age-long strife between the cultivator and the herder, a strife which is of the utmost social importance in studying the history of human relations. The question as to whether Cain may have said something so idolatrous that the Jewish editor cut it out, seems relatively unimportant. On the whole, the book is fairly free from slips. A notable omission in references to works that elucidate the background of the Old Testament is Robertson Smith's *Religion of the Semites*. In the chapter on myths of birth and death no mention is made of what is perhaps one of the most poignant myths of all—the story of Etana and the Eagle, which shows that from very early times man was puzzled by the pain and suffering which attend birth. Again, the relation of the Babylonian legend Ishtar to the later story of Persephone is not clearly brought out. The book, however, though not a comprehensive account of the whole story of myth is at any rate full of suggestions, and will, we hope, induce many teachers to take a wider view of the background of the stories which they use in their work. R. M. FLEMING.

LIMES SAXONIAE. Von HERMANN HOFMEISTER. Sonderabdruck aus Band 56 der Zeitschrift der Gesellschaft für Schleswig-Holsteinische Geschichte. pp. 67–169 and 11 figs., 2 maps. Kiel: Vollbehr und Riepen. 1926.

About 1075 Adam of Bremen described the course of a Carolingian frontier, called *Limes Saxoniae* and drawn from the Elbe to the Baltic, north of Lubeck and south of Hamburg. In this description Germanic and Slavonic place-names are used, but nothing is said of the form of the frontier. A rich but not especially useful literature has grown up round the subject, and Dr Hofmeister sums up the whole question, and puts forward views of his own. He is notably successful in identifying ten out of the sixteen relevant place-names, and the line of the frontier is established along the rivers Delvenau, Trave, and Schwentine.

It is a frontier depending upon natural features for its definition, like some of the

early Roman frontiers, to which also the description of the whole scheme as a Mark system, borrowed from G. Maas: "Der eigentliche Mark war ein ursprünglich nicht zum Reich gehöriges, dem Nachbarn abgenommenes Gebiet, das durch Anlage fester Plätze, Ackerteilung militärischer Posten und sonstiges besonders geschützt ward und dem eigentlichen Reichsboden als Vorfeld diente". We can even detect echoes of the Roman world: "Schweres Abschlusswerk vor . . . per praeclusa Saxonici limites ex superna imperatoria, qui exercitus praecunat Aquisgrani adductus est". This is supported by N.S. when the Limes is mentioned for the first time, and by Eberhardt: But it reveals little difference from Jornandes or even Marcellinus. It would therefore be a matter of the greatest interest to know more about the organization and character of this frontier boundary.

But nothing is known for certain, although Dr Holtzmeister has a working hypothesis. He suggests that it was protected with little earthworks, not so unlike the earliest posts along the line of Hadrian's Wall. Along the southern end of the Limes are three smaller fortifications: Erbenschang, Sickelcite and Nünchan; and there is one more on the north bank of the Elbe, at Hohebürg bei Schaffdorf. If the dating of this series of earthworks is right, Hachse, on the north bank further down the river, founded by Charlemagne in 810, is yet another. As a working hypothesis the suggestion that these are all the small posts of frontier guards commends itself, especially to the student of Roman frontiers. But there are some serious drawbacks to its acceptance which cannot be left unexplained. Really adequate plans of the earthworks are lacking; and until they have been prepared, with the aid of excavation, it is premature to say that the resemblance is real. Small enclosures of any age have a tendency to look much alike when Time has dealt hardly with them. At Erbet and many sections had in that Sickelcite and Nünchan have been trenched by Schuchhardt just to mention Hohenburg bei Schaffdorf. These excavations produced pottery, and it is not too much to say that Dr Holtzmeister differs essentially with Schuchhardt over the dating and character of this ware. For Schuchhardt it is Slavic and early Slavic too; for Holtzmeister it is Frankish Carolingian. But until Dr Holtzmeister illustrates this pottery, and produces a representative picture thereof, from which the reader can judge the question for himself, this argument does not rise above the level of a polemic. It would have paid our author, in fact, to reduce his text and to increase his illustrations. How it may be noted that figures 5, 9, 10 and 11 are almost useless owing to excessive reduction.

If the method is meant to receive support in this country, and to promote a scientific enjoyment of its results, then one would wish it success. Obviously, a thorough examination of the sites indicated by Dr Holtzmeister is now required, and the possibilities are fascinating. It ought not to be difficult in 1937 to settle the question of the antiquity of these well-known sites; but until it is done, with that thoroughness in fieldwork associated with German archæology, the outside world may suspend judgment on the question of the organization and detailed character of the *Limes Saxonicus*.

I. A. RICHMOND.

NATIONAL ANCIENT MONUMENTS YEAR BOOK. Edited by JOHN SWANWICK. Wickham Press, 1937. 5s. 6d.

This is a most useful and valuable book of reference containing a large amount of information relating to ancient monuments and the Societies interested in them. There is a list, arranged under counties, of monuments scheduled; and interesting

articles on ' The Preservation of Ancient Cottages ' (by Sir Frank Baines), ' The Death-watch Beetle, and how to deal with it ', ' Underpinning ' and so forth. We feel sure that a handbook of this kind would be found useful by the secretaries of all archaeological societies, and, considering the very low price at which it is published, it deserves to be supported by the public at large.

EGYPTIAN PAPYRI AND PAPYRUS-HUNTING. By JAMES BAIKIE, F.R.A.S. Religious Tract Society, 4 Bouverie Street. 1925. pp. 324 and 32 plates. 10s. 6d.

Mr James Baikie has provided a pleasant and popularly written book for those who do not seek a knowledge of Papyri first-hand. It does not pretend to be more than a compilation from many sources. Mr Baikie himself is so modest and disarming in his preface that he almost proclaims the danger of his system. Inevitably such books tend to select, and so to give undue importance to, the picturesque or exciting. Material of this kind it is easy enough to gather from the vast field of Papyri which are available but the historical perspective which results from such selection may be no more than the cumulative perspective of let us say the better Sunday papers of our own time.

JOHN JOHNSON.

MOUSEION. Bulletin de l'Office Internationale des Musées. Institute de Co-operation Intellectuelle de la Société des Nations. (Les Presses Universitaires de France). No. 1. Avril 1927. 10 francs.

The League of Nations has done well to include museums in the extended purview of its activities, and *Mouseion* is the official organ of that particular branch of investigation.

There can be but little doubt that the existence of a central Information Bureau dealing with all mu eums is long overdue, and the present effort is therefore warmly to be commended. But the current number of *Mouseion* confines itself almost exclusively to the art museum, and the fine arts. It is to be hoped that future numbers may have something to say on the subject of archaeology, for in this particular branch of museum work co-operation between continental museums with those in this country is specially desirable. All museums, even those in small centres, have an international significance in solving the riddles of the past, and the better they are linked together the more efficient they will become to the student, and the more attractive to the general public.

Though the general question of mutual co-operation is apparently simple enough, it still presents difficulties. It is apt to be complicated by the abundance of suggestions, and by the rival claims of the student and of the general public, each demanding different treatment. But when allowance has been made for these factors, certain central facts emerge, which must certainly commend themselves to all Directors of museums.

The first is the establishment of a central office, which would preserve a definite series of photographic records, or better still of negatives from which prints could be taken for the student. Such a bureau likewise would render good service as a clearing house for *bona fide* duplicates. Even more advantageous however than the exchange of duplicates would be the exchange of ideas in such matters as policy, preservation, and museum methods generally. Another feature proposed is the ' adoption ' of

small museums by larger ones in the same district, the 'big brother' principle applied to museums. Such a movement is already on foot in this country, in the proposed federation of the Lancashire and Cheshire museums. Other matters under consideration are the publication of popular guides, summaries of collections, and scientific catalogues.

In addition to papers dealing with the above questions there are articles on the art galleries of Budapest, Brussels, and of the museum of Comparative Sculpture at the Trocadero in Paris, together with an instalment of a general directory of museums, and notes and reviews. FRANK STEVENS.

PROCEEDINGS OF THE PREHISTORIC SOCIETY OF EAST ANGLIA. Vol. v, part 2. 1926. 10s.

By far the most important paper in this number is the exceedingly clear and well written presidential address of Mr A. L. Armstrong on the problem of Grim's Graves. He concludes that the mining industry there extended over a 'long series of periods', beginning with a 'Northfleet' industry and terminating during the early neolithic period. He recognizes the following phases:—a phase of shallow trenching in the valley; the 'primitive pits'; the floor covering the primitive pits, which he equates with the Campignian culture; an 'intermediate pit' phase; and finally the large deep pits on the south-east border of the area, which cut through old floors. Incidentally he demolishes the theory that patination alone is any criterion of date. In a paper on the silted-up lake of Hoxne and its implements, Mr Reid Moir describes a glacial deposit 6½ feet in depth which overlies an 8 feet layer of brickearth, in the lower part of which Mousterian implements were found. Beneath this was a stratum of gravel containing late Acheulean implements. Mr Reid Moir also describes some further excavations in Boulton and Paul's brickyard at Ipswich, and the discovery of remains of wooden shelters which he places in the earlier period of upper palaeolithic times. Mr Sainty and Professor Boswell give an account of the Acheulean workshop site at Whitlingham near Norwich and bring forward evidence in favour of an advance of ice at the end of the Chellean period and before the full development of the true Acheulean culture. R. C. C. CLAY.

AKHNATON, KING OF EGYPT. By DMITRI MEREZHKOVSKY. Translated from the Russian by NATALIE A. DUDDINGTON. Dent and Sons. 1927. pp. 372. 7s. 6d.

It does not seem likely that the trilogy of historical novels of which this is the second volume will equal the merit of M. Merezhkovsky's previous work. There is for instance nothing in it to equal the extraordinary brilliance of his *Leonardo da Vinci* with its vivid picture of Renaissance Italy. It is true that there is plenty, almost too much, local colour, but a quantity of archaeological detail is not enough. The fact is that Akhnaton and his Egypt are so remote in time and so alien in spirit from us today that a book of this kind can hardly hope to succeed. It has nevertheless considerable intrinsic merit, and there are passages in it which still allow us to hope for a really fine novel from its author some day. Meanwhile, for the novel-reader with a taste for the ancient and unable or unwilling to go to more prosaic sources, this volume will give some notion of the life and times of the extraordinary person after whom it is named. E. G. WITHYCOMBE.

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